DOCUMENT RESUME

ED 115 080 FL 007 127

AUTHOR	Fisiak, Jacek, Ed.
TITLE	Papers and Studies in Constrastive Lingusitics, Vol. 2. The Polish--English Contrastive Project.
INSTITUTION	Adam Mickiewicz Univ. in Poznan (Poland).; Center for Applied Linguistics, Washington, D.C.
PUB DATE	74
NOTE	389p.; For related document, see FL 007 126
AVAILABLE FROM	Center for Applied Linguistics, East European Projects, 1611 N. Kent St., Arlington, Virginia 22209 ($6.00)
EDRS PRICE	MF-$0.76 HC-$19.67 Plus Postage
DESCRIPTORS	Adjectives; Adverbs; Comparative Analysis; Consonants; *Contrastive Linguistics; Determiners (Languages); *English; English (Second Language); Form Classes (Languages); *Grammar; Intonation; Language Instruction; Morphology (Languages); Nominals; Phonetics; *Phonology; *Polish; Pronouns; Semantics; Sentence Structure; Slavic Languages; Syntax; Transformation Generative Grammar; Verbs; Vowels

ABSTRACT

This collection of 31 papers is the second resulting from the Polish-English Contrastive Project. The overall purposes of the project are to prepare a Polish-English contrastive grammar and to develop pedagogical material. The basic model used for the research is the transformational generative one. This volume is divided into three sections: (1) General - three articles dealing either with general aspects of contrastive analysis or with semantics, (2) Phonology - eleven articles dealing with all aspects of English and/or Polish phonology, and (3) Grammar - seventeen articles dealing mostly with morphology and syntax of English and/or Polish. (TL)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

ED115080

THE POLISH-ENGLISH CONTRASTIVE PROJECT

PAPERS AND STUDIES IN CONTRASTIVE LINGUISTICS

VOLUME TWO — 1973

Editor: JACEK FISIAK

Associate editor: LESLIE BAILEY

Assistant to the editor: ALEKSANDRA MIESZEK

"PERMISSION TO REPRODUCE THIS COPYRIGHTED MATERIAL HAS BEEN GRANTED BY
Jacek Fisiak
TO ERIC AND ORGANIZATIONS OPERATING UNDER AGREEMENTS WITH THE NATIONAL INSTITUTE OF EDUCATION. FURTHER REPRODUCTION OUTSIDE THE ERIC SYSTEM REQUIRES PERMISSION OF THE COPYRIGHT OWNER."

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

FL007127

UAM

POZNAŃ 1974

ADAM MICKIEWICZ UNIVERSITY, POZNAŃ
CENTER FOR APPLIED LINGUISTICS, WASHINGTON, D. C.

2

WYDAWNICTWO NAUKOWE
UNIWERSYTETU IM. ADAMA MICKIEWICZA W POZNANIU

Nakład 1000+120 egz. Ark. wyd. 31. Ark. druk. 25,25. Papier druk. sat. kl. III.
70 × 100 80 g. Oddano do składania 10 V 1973 r. Podpisano do druku 10 IV 1974 r.
Druk ukończono w kwietniu 1974 r. Zam. 398/197. Cena zł 93,–

DRUKARNIA UNIWERSYTETU IM. A. MICKIEWICZA
POZNAŃ, UL. FREDRY 10

TABLE OF CONTENTS

GENERAL

Michael Sharwood-Smith (Poznań): *Contrastive studies in two perspectives* . . . 5
Jerzy Bańczerowski (Washington): *Some contrastive considerations about semantics in the communication process* . . . 11
Rolf Berndt (Rostock): *A semantically based approach to language description and its potential impact on the teaching of foreign languages* . . . 33

PHONOLOGY

Stanisław Puppel (Poznań): *The distributional characteristics of English and Polish vowels* . . . 65
Roman Kalisz (Poznań): *The distributional characteristics of English and Polish diphthongs* . . . 73
Wiesław Awedyk (Poznań): *The distribution of non-syllabic phonemes in English and Polish* . . . 83
Wiesław Awedyk (Poznań): *The syllabic structures of English and Polish* . . . 89
Jerzy Rubach (Warszawa): *Some remarks on aspiration in Received Pronunciation with reference to Polish* . . . 97
Edmund Gussmann (Lublin): *Nasality in Polish and English* . . . 105
Janina Ozga (Kraków): *Stress in English and Polish — An introduction to a contrastive analysis* . . . 123
Halina Mackiewicz-Krassowska (Poznań): *Intonation of English and Polish declarative sentences* . . . 137
Alicja Wołoszyk (Poznań): *Intonation of interrogative sentences in English and Polish* . . . 145
Bogusław Marek (Lublin): *Intonation of imperative sentences and requests in Polish and in English* . . . 161
Aleksandra Mieszek (Poznań): *Intonation of compound sentences in English and Polish* . . . 181

GRAMMAR

Maciej Sienicki (Warszawa): *Numerals in Polish and English* . . . 189
Aleksander Szwedek (Łódź): *Some aspects of definiteness and indefiniteness of nouns in Polish* . . . 203
Aleksander Szwedek (Łódź): *A note on the relation between the article in English and word order in Polish* (Part 1) . . . 213

Aleksander Szwedek (Łódź): *A note on the relation between the article in English and word order in Polish* (Part 2) 221
Ireneusz Jakubczak (Poznań): *Some remarks on generic relative constructions in English and Polish* 227
Barbara Lewandowska (Łódź): *Nominalization in English and Polish — General remarks* 233
Jerzy Adamko (Lublin): *Noun objects in Polish and in English* 245
Barbara Fedorowicz-Bacz (Kraków): *Adjectives in nominal phrases — An English-Polish contrastive study* 255
Maria Grala (Poznań): *English participial compounds and their corresponding forms in Polish: a transformational contrastive study* 275
Maria Grala (Poznań): *Negated adverbial participles in Polish and their corresponding forms in English* 281
Jan Cygan (Wrocław): *Negation in English and Polish* 295
Teresa Olszewska (Lublin): *Pronominal object in English and Polish* 331
Alicja Wołoszyk (Poznań): *Attitudinal adjectives in English and Polish* 345
Monika Ostaszewska (Warszawa): *English and Polish verb phrases of the structure V+Adj* 355
Elżbieta Muskat-Tabakowska (Kraków): *Syntactic ambiguity and the teaching of written English to advanced Polish learners* 369
Magdalena Jakóbczyk (Poznań): *Verb inflection in Polish and English* 385
Janina Gut (Warszawa): *Towards a definition of impersonal sentences* 393

GENERAL

CONTRASTIVE STUDIES IN TWO PERSPECTIVES

Michael Sharwood-Smith

Adam Mickiewicz University, Poznań

1.1. The aims of contrastive studies have been much discussed and will doubtless continue to be discussed. The discussion usually centres round two fundamental points of view: the theoretical and the practical. Theoretical aims include the desire to increase present knowledge within the field of linguistics while practical aims mainly relate to teaching and the construction of teaching materials. Most discussions end with the general agreement that contrastive studies shall try to contribute to the fulfilment of both theoretical and practical aims. However if contrastive studies are to be related to these very different fields of interest, they must be considered in two different ways, that is, in the linguistic perspective and in the perspective proper to language teaching. Furthermore it must be clearly specified exactly how these two perspectives may best be combined within one organised contrastive studies project. It becomes vital to examine the links – possible and desirable – between linguistics and language teaching as a whole to determine where contrastive studies fit in and in what way an exhaustive comparison of two or more languages can serve both the linguistic and the language teacher alike.

2.1. Linguistics has often been termed the "*scientific*" study of language. Its scientific character was stressed particularly in the earlier days of its growth as an autonomous discipline so as to contrast with the more humanistic and haphazard descriptions of language that had existed before. Also it must be admitted that linguists wished to identify themselves and their studies with the modern technological – "Zeitgeist". Nowadays a more mature view is prevalent and linguistics is seen as belonging to a kind of midway area between the world of physics and chemistry and other natural sciences on the one hand and the humanities on the other. All the same, linguists adhere as closely as possible to scientific method and try to present their hypotheses, theories and descriptions in as objective and systematic a way as they can. To this extent linguistics is a science.

2.2. Linguistics, as a science, includes both theory and application. Some linguist may evolve a theory of language from which a description of one or more languages may follow. The theory is thus applied to a particular task and the result is a grammar. A modern grammar is then no longer a piecemeal description of some language based on some accepted and vaguely formulated principles but rather a fairly rigorous application of some theory. Any problems encountered in the application will have immediate consequences on the shape of the theory which may then have to be explicitly altered to account for the "data".

2.3. The term "applied linguistics" has been coined, probably on analogy with the applied sciences, to indicate certain applications of linguistics in more practical spheres of activity. However it is usually understood in the absence of further qualification as the application of linguistics in the field of language teaching. It is an unfortunate term nevertheless due the generality of the term "applied" which does not tell us exactly what is applied to what. It is reasonable to argue as, for example S. Pit. Corder does at Edinburgh, that the first application of linguistics is in fact the description of language. Using the description is a further and separate application which must not be confused with the first which is based on an abstract theory. The term "applied linguistics", although current, is therefore ambiguous.

2.4. In this paper applications of linguistics will be of two basic types[1]: first-order applications which follow directly from linguistic theory and second-order applications which involve considerations external to linguistics proper. Second-order applications help to constitute a number of "interdisciplines", that is, areas of interest which occur at the interface[2] between linguistics and some other area. For example the interface between linguistics and psychology results in the area called "psycholinguistics". In the same way we obtain a specification of what concerns among others sociolinguists, neurolinguists, mathematical linguists, computational linguists and, as will seen later, pedagogical linguists.

---

[1] These two basic distinctions, which follow from Corder's criticisms at Edinburgh, are broad ones aiming at simplification and do not reflect the complex ways in which each field may relate to both linguistics and other associated fields.

[2] Professor Strevens uses this term at Essex University. The aim of the present paper is to emphasize the fact that semi-independent studies may be usefully set up at an interface rather than letting it remain a vague disputed no-man's land.

2.5. First-order applications of linguistic theory involve very detailed and explicit descriptions of language systems. The theory must be rigorously tested against the realities of language which the theory aims to account for in some way. Thus not only must the application be meticulous. It must also be exhaustive so that facts which the theory cannot account for are not conveniently set aside. A theory must be vulnerable according to scientific method and must be rejected or changed in the face of contradictory evidence. The theory and first-order application of the theory is dealt with in a scientific frame of reference and may be subsumed under the heading of linguistics or "the linguistic sciences"[3]. The comparison and contrasting of two or more languages may be undertaken within this perspective and the term contrastive linguistics is usually used to characterise it. This term of course denotes a type of linguistics and not an interface between two disciplines.

2.6. Second-order applications, that is, applications of linguistics (theory and first-order applications) combine interests of two disciplines. A psychologist is interested in language behaviour as a part of general human behaviour and he needs the systematic theories and descriptions of the linguist to further his research into this field now called psycholinguistics. Similarly a sociologist is interested in language as a social phenomenon and he too needs linguistics for his work in sociolinguistics. We may reverse the picture by saying that certain linguists, following the general principle that every aspect of language is of interest to the linguist, specialize in psychological or social or other aspects where they need the insights provided by the sister disciplines. It is immediately apparent that psychology and sociology are in no way subordinate to linguistics and even the interdisciplines created at their interface with linguistics may be treated to some extent as independent areas of study. The same may be said of all the other second-order applications and those sister disciplines, like language-teaching, which they relate to linguistics.

3.1. Language teaching is less easy to describe in simple terms. It can be both a study in the academic sense and an activity undertaken in the unordered changing context of everyday life. It is not a science in any strict sense although the study of language teaching may have its scientific aspects. In spite of the fact that it must be viewed principally as an activity, however, language teachers nowadays are confronted with a body of theoretical academic knowledge designed to aid them in some way when they come to actually teach in the classroom. This knowledge is often presented during teacher-training or at conferences and courses designed to acquaint them with current trends. We can therefore speak of language teaching in an academic sense and here the term "language pedagogy" is used to cover this meaning and distinguish it from language teaching in the practical sense. Language pedagogy concerns itself with the total language teaching situation some parts of which may be dealt with in a scientific or quasi-scientific way and other parts of which are more humanistic and view teaching as an art as well as an application of some theory. Language pedagogy is not a science[4] but a conglomerate of knowledge typical of the content of a teacher training course for language teachers. Much has to do with language but there are elements common to all areas of pedagogy like general educational theory, administrative principles and general cultural aspects of the teaching situation. Language pedagogy is more a cover title for the academic study of language teaching than a unified well defined discipline like linguistics.

---

[3] We of course include phonetic studies c.f. Halliday et al. 1964.

4.1. A large and important part of language pedagogy will concern itself with language and the various ways in which language is studied. However it would be a mistake to imagine that the complex first-order descriptions of language, contrastive or otherwise, are suitable for language teaching. Such descriptions must be processed for pedagogical consumption. This extremely important operation will involve a process of selection, modification and rejection of items according to the demands of language teaching. Such processes must be based on clear principles derived from psychological, social and other considerations and it is clear that this must all be undertaken within a defined field of interest which will here be termed "pedagogical linguistics"[5] and which has often be called applied linguistics despite the ambiguities of that term. Pedagogical linguistics may be viewed as a second-order application of linguistics and a subject in its own right with theoretical principles and an output of practical material for eventual use in, or adaptation to, particular teaching situations. It will use material not only from linguistics proper but also from other applications of linguistics. Pedagogical linguistics deserves to be seen as a separate and important field with its own principles and not vaguely by some term such as "methodology" or applied linguistics.

4.2. The most important contribution of pedagogical linguistics is pedagogical grammar i.e. language descriptions geared to the demands of teaching. Whereas a linguist attempts to look at all areas of grammar with the same objective eye, the pedagogical linguist will shape his grammars according to the priorities of a given teaching situation or set of teaching situations. Again, his selective principles will not only operate within one particular language description offered by linguistics. It will also operate over the whole range of linguistic theories. Whereas for the linguist it is usually a matter of working within one theory rather than another, for the pedagogical linguist it may well be a matter of selecting from different grammars reflecting different theories since two separate theories may offer equally useful insights into the language, useful, that is, from a teaching point of view. At first sight it may seem that a pedagogical linguist has greater freedom than a linguist proper but it must be remembered a pedagogical grammar will be judged from at least two points of view i.e. according to its representation of the language or languages under consideration and also according to its suitability to the particular pedagogical demands which it claims to serve. This makes the pedagogical linguist's task if anything more difficult and this fact should be duly recognised.

---

[4] Although the trend is to bring every facet of the classroom situation into the domain of controlled scientific analysis it must be recognised that there will always be some less easily defined aspects of teaching and learning which may yet be seriously discussed and brought to the attention of all teachers be they theoreticians or practicians of what is still called an "art". This clarification was prompted by a discussion with Dr. W. Marton.

[5] This term was coined by T. P. Krzeszowski and discussed in the introduction of Krzeszowski 1970.

4.3 A special type of pedagogical grammar is likely to be of particular value (though this is still disputed) and that is contrastive pedagogical grammar. This is chiefly a processing of the contributions of contrastive linguistics for teaching purposes. It was claimed earlier that a (theoretical) contrastive description would successfully predict all the learner's errors for it was naively thought that these arose simply out of differences between the native and target language. This view was proved wrong by an analysis of actual errors and by the observations that contrastive descriptions took no account of the psychological processes involved in language learning. Under the system presented in this paper theoretical contrastive descriptions are undertaken within the field of linguistics with the aim of furthering linguistic knowledge including such questions as the establishing of language universals. A pedagogical contrastive grammar undertaken within a different area of study i.e., pedagogical linguistics seeks to discover contrastive insights that are useful in some way for language teachers. With the newly awakened interest in cognitive psychology and the re-emergence (or persistance) of such teaching techniques as translation and the overt presentation of language differences, it would seem that contrastive pedagogical grammar will be of real value. It may also be linked up with error analysis and attempts at a psychological model of language learning.

4.4. Pedagogical grammar and consequently contrastive pedagogical grammar will use insights from other second-order applications of linguistics, especially from psycholinguistics and sociolinguistics and their various offshoots. Just as it will take into account the psychological processes of learning a second language, it will also take into account the way language is used in society and decisions will have to be made as to what varieties and modes of a given language are to be described and taught. A quick survey of present day intensive courses and textbooks reveals that a sound theoretical basis which a contrastive pedagogical grammar might provide is frequently lacking.

5.1. Having established the links between linguistics and language teaching and defined some of the interrelating areas we may now specify what a contrastive studies project can seek to achieve within the two perspectives. From a theoretical point of view it can contribute to contrastive linguistics, that is, to the testing of specific linguistic theories, to our detailed knowledge of the contrasted languages and to the establishment of certain language universals. From a practical point of view it can lead to the production of teaching materials and teaching methods. But in order to do the latter the theoretical contrastive analyses must be processed by pedagogical linguists according to the demands of specified teaching situations and decisions must be taken about what areas of the language are relevant. On a more fundamental level decisions must be taken about a given contrastive studies project as to what extent it will function with respect to the theoretical linguistic and the language teaching perspectives. As has been shown, these perspectives involve very different approaches but with a framework such as the one outlined above the two fields of interest may be coordinated.

REFERENCES

Crystal, D. 1971. *Linguistics*. London: Pelican.

Crystal, D. and D. Davy. 1969. *Investigating English style*. London: Longmans.

Halliday, M. A. K., A. MacIntosh and P. Strevens. 1964. *The linguistic sciences and language teaching*. London: Longmans.

Krzeszowski, T. P. K. 1970. *Teaching English to Polish learners*. Warszawa: PWN.

Wilkins, D. A. 1972. "Linguistics and the scientific study of language teaching". *AVLA journal* 10. 23 - 33.

SOME CONTRASTIVE CONSIDERATIONS ABOUT SEMANTICS IN THE COMMUNICATION PROCESS

JERZY BAŃCZEROWSKI

Center for Applied Linguistics, Washington, D. C.

1. GENERAL REMARKS

The methodology of contrastive linguistics is to a great extent convergent with that applied to a non-contrastive analysis. There exists mainly a difference in the object of both of these sorts of studies. In the non-contrastive (intralingual) approach we may compare various structures of the same language with each other while the contrastive (interlingual) approach allows us to extend this method of analysis on various structures of two or more different languages being confronted. Thus, theoretically there are no limitations imposed upon the comparisons of structures in any two languages, but from the practical point of view not every comparison has the same value. Contrastive inquiries are not, of course, art for art's sake but should pursue some definite goals. Therefore it is not astonishing that we face the problem of determining which structures in two or more languages are comparable (cf. Milewski 1970; Halliday 1964: 115; Kirkwood 1966; Krzeszowski 1967; Marton 1968). It is beyond any doubt that one of the sufficient criteria of "being comparable" is semantic equivalence. By saying this, however, we do not exclude other equivalence criteria which are not meaning based.

A particular language system may be thought of as possessing two statuses, i.e. (a) non-contrastive and (b) contrastive. The former one is based on the oppositions of its own subsystems (e.g. *phoneme /s/* vs. *phoneme /k/*; *phoneme* vs. *syllable*; *syllable* vs. *sentence*, etc.). The latter is always relative depending on the languages being compared. Thus, a specific structure of one language shapes the contrastive status of another language. According to this, English will have two different statuses when compared with Hungarian and Polish.

We shall not be far from right in saying that any intralingual analysis cannot be regarded as exhaustive. The larger the number of languages with which a given language is confronted the more complete its description will be and the fuller its typological status. A similar statement can also be made about various models. The more the models which have served as the basis of description of a given language the more many sided its description will be. Some phenomena of language structure are difficult to investigate on an exclusively non-contrastive basis because there is no fiducial point of analysis.

Contrastive explorations may be carried out on the basis of any linguistic model developed in non-contrastive linguistics. The choice of an appropriate theoretical framework will surely be determined by our practical aims.

2. SOME VIEWS ON LANGUAGE COMMUNICATION

The system of language communication may be approached from different points of view, which give different emphasis to its various aspects. The communicators, both the speaker and the hearer, perform, among other things, association operations between two sets, i.e.

(a) the set of language expressions (labels)

(b) the set of extralinguistic phenomena.

The set (b) is here consciously simplified to include both the objects of reality and the mental images of this reality in the minds of communicators. This simplification will not, however, affect our subsequent considerations. The set (b) is further referred to as the universe of information (semantic space) or simply as the universe of referents and is denoted by U_{inf}. Language expressions (a) will refer to the particular subsets of U_{inf}.

In the following discussion we will concentrate on some aspects of the relation between the sets (a) and (b). Considerations of this kind are inherently connected with the concerns of semantics (cf. Grzegorczyk 1969: 256). For the central problem of meaning is the relationship between language and the world outside language.

Language communication has for the most part a teleological character, i.e., it is goal-oriented. Intrinsically connected with the realization of this goal, irrespective of how it may be formulated, is the selection (naming) of appropriate subsets of information in the universe U_{inf} and the description of relations that hold among them. In certain circumstances the said subsets may be chosen by pointing or by other optical signals. In most cases, however, we construct a language expression of the subset in question.

Carrying out the analysis of the association operations between language expressions and extralinguistic reality presupposes two hypotheses. The first is concerned with the structure of language and the second with the structure of the extralinguistic world. The universe U_{inf}, which, theoretically considered, may contain an unlimited number of subsets, is constantly classified and reclassified according to the communicative purposes of man. The classification of subsets in U_{inf} occurs on various levels of abstraction (cf. Kay 1941). The question now arises as to ways of selecting (naming) a target subset out of the universe U_{inf}. There are, generally speaking, two possibilities:

(1) to every particular subset may be associated a separate ready expression (lexeme) which must be memorized. Such a solution is, however, not feasible. The universe U_{inf}, as was assumed above, may contain an unlimited number of subsets (practically it is limited but it is very large). Thus an unlimited memory would be necessary in order to denote the subsets in question.

(2) some subsets are given simple (lexemic) expressions while other are denoted by compound ones (i.e., groups of lexemes, sentences, texts).

If language would proceed according to formulation (1) it would be a very primitive and above all uneconomical device. All means of denotation which require the same number of expressions as that of subsets in U_{inf} are not interesting for humans as participants in the communication system. Language makes sense as a means of communication only to the extent to which it is able to denote (select) an unlimited number of subsets in U_{inf} with the help of a limited number of expresssions (simple expressions as well as compound ones).

As we are inclined to say here language in the communication process follows formulation (2). And it should be further stressed that lexemes serve as names of subsets on the higher levels of abstraction while compound expressions refer to subsets on lower levels. (The levels of abstraction are relative to each other). Thus larger domains are given lexemic names while more specific sets acquire expressions longer than one lexeme (cf. Nida 1964: 77). The classes of phenomena named by lexemes are too large to serve communication purposes, and that is why we must reduce their entropy (cf. Jespersen 1958: 108f).

The user of a language is, then, not forced to memorize the expression of every particular subset which he wishes to select out of U_{inf}. What he really needs to do is to store in his memory the lexemic names (in principle only a part of them) and the "rules" of constructing compound expressions (it is also possible that he must memorize some compound expressions).

From the psycholinguistic point of view we can discern various stages in the process of creating language expressions before they appear on the surface. Particular stages could be handled by appropriate grammars, and it is our belief that some of these stages could be captured (although in a very simplified manner) by a ***Determination Grammar*** and an ***Adherence Grammar***. Below, we will try to sketch briefly some of the principles of both of these types of grammars in order to make clear our contrastive considerations about semantics.

3. DETERMINATION GRAMMAR

Every expression of a natural language may be thought of as a determination string with respect to the determination grammar. Determination strings are constructed in order to name appropriate subsets in U_{inf}. They have different lengths and can be conceived of as structures *sui generis* composed of some number of ordered pairs in the form ⟨Dm, Ds⟩ where Dm denotes *determinatum* and Ds *determinans* (cf. Bally 1950: 102; Kastovsky 1969).

Determination grammar is intended to account, among other things, for the following fact: when one lexemic name b (= Ds) is associated to another lexemic name a (= Dm) then the pair ⟨a, b⟩ usually denotes a smaller subset in U_{inf} than the subset denoted only by a; e.g., the Polish lexeme *chłopiec* 'a boy' denotes a larger subset than the following determination strings:

(a) *mały chłopiec* 'a little boy'
(b) *chłopiec biegnie* 'a boy runs, a boy is running'
(c) *chłopiec brata* 'a boy of my brother'

The sets denoted by (a), (b), (c) are contained in the set denoted by *chłopiec*. All these three compound expressions have a similar determination structure, i.e., they may be considered ordered pairs, one member of which functions as Dm and the other as Ds. The Ds of these pairs diminishes the entropy of selection of an appropriate subset in relation to the subset denoted only by Dm. In other words, the Ds diminishes the number of possible semantic channels opened by the Dm (cf. Cheng 1968: 294).

Longer expressions can also be represented in the form of strings of determination pairs, e.g.: the Polish sentence *Mały chłopiec biegnie szybko do dużego domu* 'A little boy runs quickly to the big house' may be analysed into the following determination pairs:

(a) ⟨chłopiec, mały⟩ '⟨boy, little⟩'
(b) ⟨chłopiec, biegnie do⟩ '⟨boy, runs to⟩'
(c) ⟨biegnie do, szybko⟩ '⟨runs to, quickly⟩'
(d) ⟨biegnie do, domu⟩ '⟨runs to, house⟩'
(e) ⟨domu, dużego⟩ '⟨house, big⟩'

The above determination pairs not only show which of their members functions as Dm and which as Ds but also give us information on how the Ds is associated to Dm (inflectional suffixes). This problem in principle does not fall within the scope of determination grammar but is rather the concern of adherence grammar. Determination grammar is concerned with what determines what, and this information is exhibited by the order of members in determination pairs. Therefore, it is fully redundant and superfluous to specify other adherence information, and it would be sufficient to operate with forms of lexemes similar to the reconstructed roots of the Indo-European protolanguage or to the forms of roots in Semitic languages (cf. *qtl* 'kill'). Thus in the determination grammar of Polish it is sufficient to make use of the ordered pairs whose members have the following shapes: ⟨chłopc-, mał-⟩, ⟨chłopc-, bieg-⟩, ⟨dom-, duż-⟩, etc.

Determination grammar must arrive at decisions with regard to:

(a) which lexemes (words) are determinatively connexive so that they can be grouped into determination pairs;

(b) which lexemes in language expressions function as Dm's and which play the role of Ds's;

(c) which of the lexemic names of a concrete determination string function as ***determinatum absolutum***, i.e., the Dm which in its turn does not determine anything else and which may be regarded as a starting (or central) point of a determination process (cf. Jespersen 1958: 96). In the above examples the role of ***determinatum absolutum*** is played by ***chłopiec***.

Domination relations in determination grammar rest on principles other than those of IC-Grammar or Dependency Grammar, because in determination grammar expressions denoting larger subsets in the universe U_{inf} dominate over the expressions denoting smaller subsets. Thus in the Polish sentence *Mały chłopiec biegnie szybko* 'A little boy runs (is running) quickly' the domination relations will be represented in the following way:

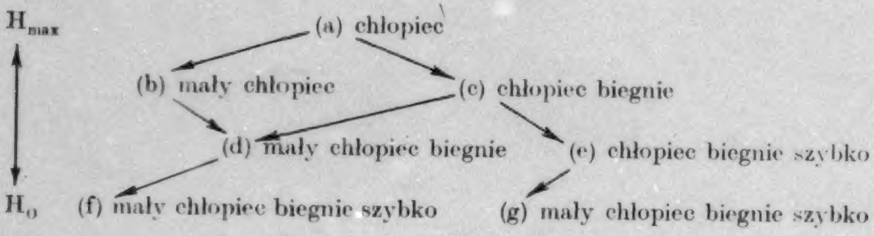

H_{max}
(a) chłopiec
(b) mały chłopiec
(c) chłopiec biegnie
(d) mały chłopiec biegnie
(e) chłopiec biegnie szybko
H_0
(f) mały chłopiec biegnie szybko
(g) mały chłopiec biegnie szybko

Fig. 1

The domination tree as shown in Fig. 1 could (of course) be reversed and the domination relations changed in such a way that the expressions of smaller subsets would dominate over the expressions of larger subsets.

It was repeatedly stressed above that determination strings are constructed to serve the purpose of denoting the subsets in U_{inf}. But the same aim may be realized in a different way:

(a) the expression of the same subset in U_{inf} may be arrived at within the framework of the same determination string.

Fig. 1 illustrates three possibilities of derivation:

I. $(a) \rightarrow (b) \rightarrow (d) \rightarrow (f)$
II. $(a) \rightarrow (c) \rightarrow (d) \rightarrow (f)$
III. $(a) \rightarrow (c) \rightarrow (e) \rightarrow (g)$
$(f) = (g)$

(b) the same subset may be named by determination strings of various length. We assume that in a given language there occurs more than one determination string which produce an equivalent denotative effect. But the shortest determination string must also exist. The following Polish sentences, which under certain communicative conditions have the same meaning, should illustrate this point:

(A) (1) *Praca uszczęśliwiła go* *The work happied him
(2) *Praca uczyniła go szczęśliwym* The work made him happy
(3) *Praca spowodowała, że został szczęśliwy* The work caused him to become happy
(4) *On został szczęśliwy dzięki pracy* He became happy because of the work

(B) (1) *On mi ufa* He trusts me
(2) *On ma do mnie zaufanie* He has trust in me
(3) *On żywi do mnie uczucie zaufania* He fosters a feeling of trust in me
(4) *Ja cieszę się jego zaufaniem* I enjoy his trust

Considering the examples just cited two linguistic views are possible:

(a) all sentences of (A) and (B) denote identical (or slightly different) subsets respectively;

(b) there are four different semantic structures present in every group of sentences.[1]

Our belief is that both these views hold to a certain degree. We postulate that all sentences of (A) denote the same subset of information in U_{inf} but it is demonstrated from a different angle each time. This is equivalent to saying that a different determination channel is activated each time. The same is also true for the sentences of (B). Thus one and the same subset is reflected in a different way each time. This also means that in each sentence different connections to the lexemic names of other subsets are involved. These different connections may be regarded as additional semantic information. It does not seem to be out of place to suggest that with regard to the denoted subset the four sentences (in each group) are in complementary semantic distribution.

Apart from the above considerations it would be worth testing how native speakers actually judge and use such sentences, because linguists are able to find many different interpretations for them. We are convinced that the differences among these sentences may be both communicatively relevant as well as redundant depending upon the communication purpose. For the confirmation of this view we find evidence in the circumdetermination phenomenon to be discussed later.

---

[1] In transformational grammar the surface differences result from optionality in certain transformations.

4. ADHERENCE GRAMMAR

The output of determination grammar, i.e., the strings of ordered determination pairs, may be looked upon as having a predominantly non-linear structure. This is especially clear when one Dm has two or more Ds's. Unfortunately, we are not able to communicate a non-linear structure of this kind in a non-linear way. The transposition of non-linear determination structures into linear surface structures causes some problems which make adherence grammar indispensible.

The lexemes of which the determination pairs ⟨Dm, Ds⟩ consist do not always immediately follow or precede each other but are divided by the members of other pairs. Moreover, an ordered pair may be represented on the surface by only one element (cf. Polish *idę* 'I go' which reconstructs the determination pair in the form of ⟨ja, iść⟩). A language must have at its disposal a means with which to guarantee the mutual association of the members of determination pairs in a non-ambiguous way.

Adherence grammar (and other factors such as knowledge about the extralinguistic reality) enables the receiver of the communiqué to reconstruct the underlying determination structure correctly and thereby to arrive at the target subset in U_{inf} intended by the speaker. Adherence grammar is concerned with the means by which the formalization of adherence connexity is achieved, i.e., it investigates how the elements of a string are assigned to each other. The output of an adherence grammar are ordered pairs of the type ⟨Am, As⟩, where Am denotes *adhaesum* and As *adhaerens*. In the Polish sentence *Maly chlopiec biega szybko* we know exactly that *maly* is assigned to *chlopiec* and not to *biega*, and that *szybko* is assigned to *biega* and not to *chlopiec*, although it would be possible, as the following sentence shows: *Szybki chlopiec biega malo* 'A quick boy runs little' (cf. Zabrocki 1969).

Thus ordered pairs of the type ⟨chłopc-, bieg-⟩ fall into the scope of determination grammar, while pairs of the type ⟨chłopiec, mały⟩ are the object of adherence grammar. There is, however, an intrinsic interrelation between both these grammars.

In the light of our considerations morphology should be viewed to a great extent as the object of adherence grammar, and so it should be shifted from the paradigmatic plane to the syntagmatic one. In other words, morphology is one of the exponents of syntax. Theoretically every 'part of speech' may occur in two statuses, i.e., *in statu adhaeso* (and so *determinato*) as well as *in statu adhaerente* (and so *determinante*), (cf. Sweet 1913: 24). In practice, however, there will be some restrictions imposed upon it.

5. THE STRATEGY OF NAMING ON THE LEXEMIC LEVEL

It is rather commonplace to state that the classification of semantic space and the naming of the various classes derived there from are divergent in different languages. Efforts to systematize vocabulary date back to antiquity and continue today. Different approaches have been taken to solve this problem.

Classes of higher-level abstraction are usually named, as was mentioned above, by simple lexemes. Unfortunately, the naming of these classes does not coincide in any two given languages and is thus the major source of trouble, for the strategy of naming on the lexemic level influences to a large extent the strategy of building up compound expressions. If naming and classification on the higher levels of abstraction were carried out in various languages in the same way, then the strategy of constructing compound expressions in a foreign language would be largely predictable on the basis of a speaker's knowledge of his native language.

The specific structure of the classification of semantic space in a language becomes especially available for our observation when confronted with another language (cf. Nemser 1971). It is a well known fact that the simple lexemic expressions of one language may be rendered in another language by simple lexemes as well as by compound expressions (including sentences and texts). The set of information denoted by the English verb *check out* (of a hotel) is rendered in Polish by: *wyrównać rachunek w hotelu i wyprowadzić się*. Lack of equivalence between two lexemic names may cause serious misunderstandings in translation. Thus, for example, the title of the work by N. Wiener *Cybernetics or control and communication in the animal and the machine* was translated into Polish as: *Cybernetyka czyli sterowanie i komunikacja w zwierzęciu i maszynie*, which is inappropriate because the levels of abstraction are mixed up. This may be easily seen from the following confrontation:

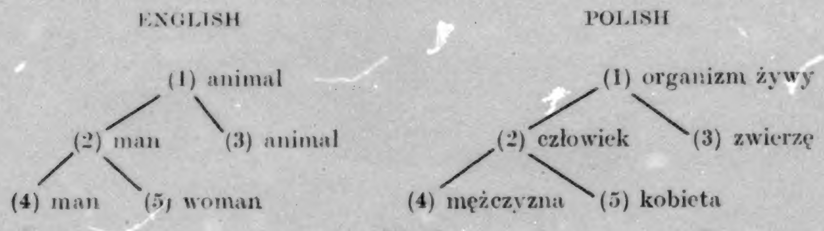


Fig. 2.

The correct Polish translation should be: *Cybernetyka czyli sterowanie i komunikacja w organizmie żywym i maszynie.* Furthermore, to cite another example, the translation of the Hungarian word *reggelizem* into English or Polish must start with lexemes denoting larger subsets (than that denoted by *reggelizni*) and their entropy must then be reduced with the help of another lexeme in order to arrive at *I eat/have breakfast* or *Jem śniadanie* respectively. A similar situation exists with the Polish word *sąsiadka* 'a woman neighbor', English *neighbor* and Hungarian *szomszéd*. The English and Hungarian words, which here open two semantic channels, have greater denotative entropy than the Polish word.

In the classification of lexemes and compound expressions we may distinguish various levels of abstraction. Usually, lexemes denote sets on the higher level of abstraction in U_{inf} and so include the sets of the lower level of abstraction denoted by compound expressions which contain these lexemes as Dm's. But with regard to the levels of abstraction the lexemic names are also differentiated; cf. e.g.:

(a)	*robić*	'to do'
(b)	*palić, pisać, czytać*	'to heat', 'to write', 'to read'
(c)	*palić w piecu, pisać list, czytać książkę*	'to heat a stove', 'to write a letter', 'to read a book'

The sets denoted by the names of the level (c) are included in the sets denoted by the lexemic expressions of the level (b), which are in turn included in the set denoted by the lexemic expression of the level (a). It is interesting to observe that questions contain the name of a larger set than that asked about; cf.:

Co robisz? Czytam		What are you doing?	I am reading
Co czytasz? Czytam książkę		What are you reading?	I am reading a book.

In other terms the expressions of the higher-level abstraction open more semantic channels than the expressions of lower-level abstraction. In the following we will turn our attention to contrastive aspects of compound expressions.

6. DETERMINATION CONNEXITY[2]

Theoretically any lexeme in a language may be determined by any other lexeme thus making possible the existence of any determination string. As a matter of fact such a situation does not occur in any natural language because of the many constraints imposed upon the determination connexity. This results in the exclusion of a great number of possible strings. To specify explicitly the rules of determination connexity in a language is not an easy task, and sometimes it is almost unattainable. Languages differ strongly as to the constraints imposed upon the connexity in question. Thus the strategy of the determination connexity in a foreign language is difficult to predict on the basis of the native language, and it seems best to conceive of it (at least to a high degree) as random.

---

[2] The determination connexity is related to the problem of selectional and strict subcategorizational features in transformational grammar (cf. Chomsky 1965: 63f; Langedoen 1969: 34f;). But instead of setting up any rules for determination connexity we propose to make up an inventory of all determination pairs actually occurring in a language.

In order to use a foreign language correctly we are forced, however, to surmount these difficulties, because without knowing the above mentioned constraints we would not be able to construct determinatively acceptable strings of lexemes. In other words, we must know which ordered pairs of lexemes are determinatively connexive. It should also be emphasized that the knowledge of determination connexity although indispensible does not yet guarantee the desired denotative meaning for the correct determination string. Thus, for example, the English lexeme *book* is connexive with *big* and *great*. But the denotative meanings of the strings *big book* and *great book* are different.

The lexemic classification and the determination connexity provide the necessary conditions upon which the alternating strategies for constructing compound expressions operate. Below we shall try, in a tentative way, to account for some aspects of this problem.

7. CONVERGENT STRATEGIES

It is not easy to define what convergent (congruent) strategies should be like, although intuitively the matter seems to be clear. The examples cited will illustrate what we have in mind. This kind of strategy could also be called similar or even identical. If two or more languages reveal a convergent strategy to some extent, then knowing the equivalent lexemes enables us to predict the correct determination strings of one language on the basis of the connexity of the other languages. This operation reduces to filling the same determination structure with equivalent lexemes of another language.

Thus if we know that in a number of languages there exist such determination pairs as: ⟨student-, read-⟩ and ⟨read-, book-⟩, we are then able to create the following correct determination strings:

(A) English: The student is reading a book.
Polish: Student czyta książkę
Russian: Студент читает книгу
German: Der Student liest ein Buch
Lithuanian: Studentas skaito knygą
Hungarian: A diák olvas egy könyvet

Finnish:	Ylioppilas lukee kirjaa
Japanese:	Gakkusei-wa hon-o yonde imasu

A similar, although, with regard to Polish and Japanese, less predictable situation, occurs with the pair ⟨play with-, fire-⟩:

(B) English:	to play with fire
Polish:	igrać z ogniem
Russian:	играть с огнём
German:	mit dem Feuer spielen
Swedish:	leka med elden
Lithuanian:	žaĩsti ugnimi
Hungarian:	a tűzzel játszani
Finnish:	leikkiä tulella
Japanese:	hiasobi suru

The two above groups of determination strings denote respectively the same two target subsets in semantic space. However, it may occur that the determination strings of two languages built up seemingly on the basis of convergent strategy happen not to be connexive in one language or to denote different things in the two languages. Thus, starting with the English string *play with fire* one might propose the Polish *grać z ogniem*, which, however, denotes something other than *igrać z ogniem*. The reason for this must be that the condition of convergent strategies is violated, i.e., either the lexemes are not equivalent or there is a difference in constraints imposed upon their connexity.

8. DIVERGENT STRATEGIES

(a) *Differences in the determination connexity constraints*

Lexemic expressions which are largely equivalent may not coincide as to restrictions imposed upon their determination connexity. We could operate here with the notion of determination valence too. The English verb *'go by'* and the Polish verb *'iść'* exhibit different determination valences. Thus, in English the pair ⟨go by-, train-⟩ is connexive but the same pair in Polish is not. Therefore, in English it is possible to form the sentence *I go by train.* In Polish, however, the sentence **Idę pociągiem* is determinatively not connexive and we must therefore resort to the verb *jechać*. On the basis of the English pair ⟨go by-, train⟩ the strategy for arriving at correct determination strings is not predictable in such languages as:

Polish:	jechać pociągiem
Russian:	ехать поездом
Lithuanian:	važiúoti tráukiniu

German: mit dem Zug fahren
Swedish: åka tåg
Finnish: matkustaa junalla

but it is predictable in:

Hungarian: vonattal menni
Japanese: densya de ikimasu

Thus the notion 'go by' or 'go' cannot be determinated by the notion 'train' in Polish, Russian, German, Lithuanian, Swedish and Finnish. But this does not mean that the reverse determination may not hold. Thus we have the Polish *pociąg idzie*, and the Russian поезд идёт 'the train goes'.

Thus if the foreign language learner automatically transfers the connexity strategies of his native language to the language he is learning he may fail to construct acceptable utterances. To help the student of a foreign language in this respect we should put at his disposal a kind of dictionary which would take into account the whole range of the determination valence of a given lexeme, i.e., specify all of its determinants.

(b) *Analytic vs. synthetic*

As suggested above, we can arrive at the expression of the same target subset of U_{inf} in different ways within the same language, i.e., there can be both analytic and synthetic expressions. This same phenomenon can be observed on the interlingual level of analysis. To denote the same subset of information the speaker of one language may be inclined to use a simple (i.e., synthetic) expression while the speaker of another language may prefer a compound (analytic) one.

The synthetic expression may be thought of as the shortest string needed to denote the target subset. But we can arrive at the label of the same target subset in an analytic way, i.e., we can start from the expression denoting a larger subset (than that denoted by the synthetic expression) and subsequently reduce its entropy by attaching another expression to it. Or to put it differently, the synthetic form designates a smaller subset than the subset designated by the Dm or *determinatum absolutum* of the corresponding analytic expression. Therein lies the essence of analytic forms in comparison to synthetic ones. The Dm of the analytic form covers a set of greater indeterminacy than the set actually required in the communication process. Therefore, it is necessary to reduce its entropy in order to achieve the intended communicative effect.

It seems as if there could be no language which would possess only synthetic forms or exclusively analytic ones. In the former case we would be dealing exclusively with words, in the latter only with expressions made up of more than one word (groups of words, sentences, texts). Natural languages oscillate between these two extremes, although they may show preference for one of these types of expressions with regard to the denotation of a particular subset in U_{inf}. Thus, some kinds of expressions common in one language may not be accessible to the speakers of another language.

In Fig. 3 below we compare some analytic and synthetic expressions mainly on an interlingual level:

Analytic	Synthetic
E have breakfast	H reggelizni
P jeść śniadanie	R завтракать
G Glück wünschen	E congratulate
	G beglückwünschen
E make happy	P uszczęśliwiać
E take tiny bites	P pojadać
	H eszegetni
E make fast	E fasten
	P umocować, przytwierdzić, umocnić
G Ende machen	G beenden
P zrobić koniec	P zakończyć
E a piece of furniture	P mebel
P toczyć się podskakując	E bump

As can be seen from Fig. 3 synthetic forms of one language can be transposed into analytic forms of the same language or into analytic forms of another language and vice versa. This transposition is not automatic and it may be that a synthetic form of one language can be expressed only in an analytic way in another language. However, the possibility of such a transposition provides some kind of verification for our hypothesis that there are different ways of constructing the expressions of the same subset. Furthermore, this possibility gives us one of the keys to understanding the phenomenon of circumdetermination as well as to understanding some aspects of the determination strategy of language in general.

On the basis of this hypothesis the phenomenon of ***circumdetermination*** (circumlocution) is explainable. The mechanism of circumdetermination is inherently contained in the nature of language. Circumdetermination may be viewed from two sides:

(a) The speaker of a foreign language is in a position to use longer determination strings without knowing the shortest ones;

(b) Knowing the shortest determination string does not mean that he is also able to construct longer ones.

Point (a) has positive as well as negative consequences. It throws open the door to the possibility that even without the knowledge of a whole vocabulary we can virtually say what we need (i.e., we are in the position to build up an appropriate expression of a target subset). Thus, the student of a foreign language who has acquired a limited amount of lexemes may not feel a need to increase his vocabulary because he is able to express himself in any situation. He has reached a certain ceiling. Suppose he knows two German expressions (lexemes) *machen* and *Ende*, then he can create the third expression *Ende machen* without memorizing the lexeme *beenden*. Similarly if we knew the English lexemes *get* and *wider* we can form the expression *get wider* instead of using the verb *widen*. Thus, the analytic way of constructing language may deliver us from having to learn a new lexeme, but it nevertheless forces us to know the appropriate rule of determination connexity. Conversely, a synthetic form involves memorizing an additional lexeme but does not require the knowledge of determination connexity necessary to make up the corresponding analytic form.

In order to exemplify the realization of the circumdetermination principle formulated in point (a) we present below some of the constructions used by Polish students learning English, Russian and German[3].

	Circumdetermination constructions actually used	*Synthetic constructions which might have been used instead*
	English:	
(1)	We were not sure of his guilt, and so we decided the matter in his favor	We gave him the benefit of the doubt
(2)	Mr. Brown, who is very energetic will be able to discipline the boys and teach them how to behave	Mr. Brown is very energetic and he will lick the boys into shape
(3)	She used all her persuasive power to convince him	She brought her eloquence to bear
	Russian:	
(1)	Он стал (начал) говорить	Он заговорил
(2)	У нас пятидневая рабочая неделя	У нас пятидневка
(3)	... определить постоянную величину	... определить константу
	German:	
(1)	Wir möchten ein Zimmer für zwei Personen	Wir möchten ein Doppelzimmer
(2)	*Ich kann dir das Geheimnis nicht sagen	Ich kann dir das nicht verraten
(3)	Sie machte dem Spiel ein Ende	Sie beendete das Spiel

---

[3] For the English examples I am indebted to Dr. M. Kobylański, for Russian to Dr. A. Bartoszewicz and for German to Dr. W. Pfeiffer.

The decision in favor of an analytic or synthetic strategy on the part of the student may be influenced, among other factors, by the native language as well as by the order in which language materials have been presented to him. The transfer from analytic forms to synthetic ones and vice versa is not automatic but requires some additional information as stated above. Thus the knowledge of the shortest determination string does not preclude our inability to construct more analytic forms (cf. (b)). For example, if we know the Russian forms: ***дождить, проверить, поддержать*** we are not yet able to predict automatically the corresponding analytic strings: ***идёт дождь, подвергать проверке, выразить поддержку*** or if we know the German sentence *Ich muss darüber nachdenken* we are not yet able to foresee also *Ich muss mir das durch den Kopf gehen lassen.*

(c) *Different determination channels*

In intralingual analysis we often have to deal with determination strings in which the function of the *determinatum absolutum* is switched from one lexeme to another within the same string, as for instance in Polish:

(1) ON pracuje dobrze 'He works well'
(2) Jego PRACA jest dobra 'His work is good'
(3) PRACA uszczęśliwiła go 'The work made him happy'
(4) ON został dzięki pracy szczęśliwy 'He became happy because of the work'

The problem is to decide whether such strings which contain the same lexemes but in which the determination relations have changed (or to express it in other words, in which the second or third determination channel has been opened) denote the same or different subsets in U_{Inf}, that is, whether the opening of an additional determination channel causes also the opening of the second semantic channel. The cases now under discussion also include passive constructions, nominalizations, etc.

It seems that we could find confirmations for both interpretations. Let us start with the first possibility. The non-contrastive approach is here not decisive, for we may suspect that two sentences like: *I have the book* and *The book is with me* mean the same as well as that they do not. In interlingual analysis we observe that these two types of sentences may be somehow semantically equivalent; i.e., one language decides this matter in favor of one determination channel while the other language prefers another determination channel. This procedure becomes especially clear if we compare the translation of the following German sentences into English:

German: Die NERVEN leiden bei unserem Geschäft
English: Our WORK affects the nerves

German: Die SPANNUNG der Zuschauer elektrisierte die Luft
English: The AIR was electrified by the excitement of spectators

Furthermore, it is sometimes claimed that German does not use the passive so often as English (cf. Neuse 1962). Polish also seems to prefer active constructions. Hungarian rarely makes use of the passive. French in its turn seems to display a prevalent tendency to render English impersonal constructions with active ones (cf. Glenn 1955). Moreover, one language may be provided with both of the determination channels while another language may have access to only one determination channel, for example:

English: SHE has blue eyes
Her EYES are blue
Polish: ONA ma niebieskie oczy
OCZY jej są niebieskie
Hungarian: Kék a SZEMe (Neki kék SZEMe van)

With regard to this type of sentence we can state that Hungarian has developed only one determination channel. But in other cases the determination structure may be parallel to a great extent in all three languages, e.g.:

English SOMETHING smells
... SMELL of something
Polish: COŚ pachnie
... ZAPACH czegoś
Hungarian: VALAMI szaglik
Valaminek SZAGa van

The lack of parallelism among the determination channels may be observed very often in the case of constructions expressing the notion 'to have', e.g.:

English: I have a dog
Polish: JA mam psa 'I have a dog'
U mnie jest PIES 'a DOG is with me'
Russian: У меня (есть) СОБАКА 'a DOG is with me'
Hungarian: (Nekem) van KUTYÁm '(to me) is my DOG'
Finnish: Minulla on KOIRA 'a DOG is with me'

Intuitively we feel that some semantic difference must exist when the second determination channel is opened within the same determination string. The matter may, however, be decided in two ways:

(1) Both the determination openings of the semantic channel are in complementary distribution, e.g., the opening of the second determination channel means only that we are activating the same semantic channel in another way.

(2) The additional information about how the semantic channel opens may be considered as relevant semantic information which also brings about a relevant difference in question.

It seems that we are not yet in a position to solve this problem univocally in favor of the interpretation (1) or (2) or both. On the interlingual level of analysis, however, the differences may be stated as follows: one language opens the first determination channel or both and another language activates only the second determination channel. Thus, in English and Polish you can say *SHE has blue eyes* or *Her EYES are blue* but Hungarian has developed only the second possibility (*a SZEMe kék*); in other word, in English and Polish *SHE* as well as *EYES* may function as principal Dm but in Hungarian only *EYE*.

There are also clear-cut instances in which the change of determination relation within a given string automatically activates a second (different) semantic channel, e.g.:

(1) *I frightened the dog* vs. *The DOG frightened me*
(2) *I was frightened by the dog* vs. *The DOG was frightened by me*

The explanation of active and passive construction by L. Zabrocki in terms of a communication model may be correlated with the opening of the first or second determination channel (cf. Zabrocki 1968).

A particular language opens only some of the determination channels within a given set of lexemes. Thus in the English sentence *I read a book* we can open the second channel *The BOOK is read by me*. But the conceivable third channel **The READING of the book is mine* does not work. It does not mean, however, that such a channel cannot be exploited in any language. In connection with this it would be worth citing two Japanese examples which at first glance display unusual determination relations:

(1) *Otite iru oogi-o hiroitotta* 'He raised the lying fan'
(2) *Oogi-no otiteiruno-o hiroitotta* 'He raised the lying of the fan'

English, Polish and Russian open here only the first determination channel but Japanese is able to operate with both channels. As some scholars admit both Japanese expressions are semantically equivalent, i.e., they describe the same situation (cf. Kholodovič 1971). It seems that we should speak here rather about complementary equivalence.

From the point of view of the learner of a foreign language what does matter is whether the constraints imposed upon the strategy of 'channel opening' operations are predictable. At first glance they seem to be random to a high degree.

(d) *Unexpected semantic channel*

Some of the determination strings as a whole or some of the lexemes of which they consist open semantic channels in a foreign language in a way that is unusual from the standpoint of our native language. As can be inferred the strategy of constructing such determination strings is totally or, at best, to a very great extent, unpredictable. It is difficult to state the rules for forming such expressions. The trouble is that they constitute a considerable amount of all utterances. One can learn them only through memorization. They reflect a different grasp of the extralinguistic world and can be called external idioms (cf. Lado 1966 : 86). We think here, among others, of the following expressions:

English	Polish
It can't be helped	Trudno; Nic na to nie poradzę
Help yourself	Poczęstuj się
That was a corker	Zatkało mnie
Take it easy	Nie przejmuj się
Stand and deliver	Pieniądze albo życie
My honor is involved	Chodzi o mój honor
Where do I book the seats	Gdzie mam kupić bilety
For reasons beyond my control	Z powodów ode mnie niezależnych

The phenomenon now under discussion may be formulated as follows: the equivalent semantic channels are opened in two languages by determination structures which are unexpected from the standpoint of another language. The two groups of examples cited below illustrate more clearly this specific property of various languages:

(A)	English:	The suit fits well (The suit looks good)	
	Polish:	Ubranie dobrze leży	'The suit lies well'
	German:	Der Anzug sitzt gut	'The suit sits well'
	Hungarian:	A ruha jól áll	'The suit stands well'
(B)	English:	Neither fish nor fowl	
	Polish:	Ni pies ni wydra	'Neither dog nor otter'
	Russian:	Ни рыба ни мясо	'Neither fish nor meat'
	Lithuanian:	Neĩ vil̃kas neĩ gegùtė	'Neither wolf nor cuckoo'
	Finnish:	Ei kala eikä lintu	'Neither fish nor bird'

Speaking about rules of grammar in the above presented cases would seem to be frivolous and would neglect the real difficulties in language teaching. Instead of setting up rules of doubtful value it would be far better to prepare a vast dictionary which would contain all the unpredictable structures in a foreign language and would specify them in a predictable way.

(c) *...if the desired semantic channel cannot be opened?*

As Eugene Nida put it: 'there can be no exact translations' (1964 : 156). Such an assertion is completely understandable, and it results from the impossibility of achieving absolute correspondences between two languages. Sometimes, however, it is also hard to find expressions which are relatively equivalent. This difficulty originates from the differences both in the structure of the extralinguistic reality and in the specific ways in which a language reflects this reality (cf. Lado 1966 : 78). In extreme cases a given notion present in one language may not occur in another language. Thus, it is assumed that the notion or intuition of time is lacking in the Hopi language (cf. Carroll 1956). Similar although less extreme cases may be encountered elsewhere. It is not easy, for example, to express adequately the idea of *reconcile* (speaking of God reconciling the world to himself) in the translation of the Bible into the Venda language, since the semantic channels opened by the closest equivalents, i.e., *pfumedzanya* and *fhelekedzi* do not coincide with the semantic channel opened by *reconcile*. The former includes contradictory semantic information and the latter is restricted to marital infidelity (cf. Nida 1971 : 342). There are also scattered instances of similar difficulties encountered by the speakers of languages with more related cultural background. Thus, e.g., it requires some effort on the part of a native speaker of English to express the idea of Polish *dom bieleje* '*A house whites'. The sentence that comes here in mind '*A house shines forth white*' only inadequately approaches the idea in question (cf. Lyons 1968 : 436 - 7).

The problems now raised are closely connected with the 'linguistic relativity' hypothesis. We do not intend to devote more attention to it here, limiting ourselves to the statement that some semantic channels are scarcely accessible to the speakers of a given language community although the possibility exists of developing them.

CLOSING REMARKS

The aim of our paper was to inquire briefly into selected problems of contrastive semantics in the framework of a so-called determination grammar. The contrastive aspects of adherence grammar were not touched upon here. We frankly admit, that the principles of the determination as well as the adherence grammar have been oversimplified and a detailed study, if intended, would need more space. So our attention was mainly concentrated upon general ideas which should be more carefully elaborated in detail.

REFERENCES

Anderson, J. M. 1968. "Ergative and nominative in English". *JL* 4. 1 - 32.

Bally, Ch. 1950. *Linguistique générale et linguistique française*. 3rd edition. Berne, A. Francke S. A.

Bańczerowski, J. 1971. "Gramatyka determinacji a gramatyka adherencji (Determination grammar vs. adherence grammar)". *Sprawozdania PTPN*, Poznań.

Bellert, I., Hiż, H. 1965. "Paraphrastic sets and grammatical analysis". *TDAP* 59.

Carroll, J. B. (ed.) 1956. *Language, thought and reality*. Selected writings of Benjamin Lee Whorf. Cambridge: The M.I.T. Press.

– 1963. "Linguistic relativity, contrastive linguistics and language learning". *IRAL* 1. 1 - 20.

Chafe, W. L. 1970. *Meaning and the structure of language*. Chicago: University of Chicago Press.

– 1971. "Directionality and paraphrase". *Language* 47. 1 - 26.

– 1971. "Linguistics and human knowledge". *Monograph series on languages and linguistics* 24. 57 - 69.

Cheng, Ch-Y. 1968. "Eliminability of singular terms reconcidered". *Foundations of language* 4. 3.

Chomsky, N. 1965. *Aspects of the theory of syntax*. The Hague: Mouton.

Glenn, E. S. 1955. "Languages and patterns of thought." Washington, D. C.: Institute of Languages and Linguistics, School of Foreign Service, Georgetown University. (Mimeographed).

Grzegorczyk, A. 1969. *Zarys logiki matematycznej*. Warszawa: PWN.

Halliday, M. A. K., MacIntosh, A., Strevens, P. 1964. *The linguistic sciences and language teaching*. London: Longmans.

Hiż, H. 1964. "The role of paraphrase in grammar". *Monograph series on languages and linguistics* 17.

– 1968. "The alethetic semantic theory". *TDAP* 77.

Hoijer, H. (ed.) 1954. *Language in culture*. Chicago: University of Chicago Press.

Jespersen, O. 1958. *The philosophy of grammar*. London: George Allen and Unwin Ltd. (First published in 1924).

Kastovsky, 1969. "Wortbildung und Nullmorphem". *Linguistische Berichte*.

Kay, P. 1971. "Taxonomy and semantic contrast". *Language* 47. 866 - 887.

Kirkwood, H. 1966. "Translation as basis for contrastive analysis". *IRAL* 4. 175 - 182.

Krzeszowski, T. P 1967. "Fundamental principles of structural contrastive studies". *Glottodidactica* 2. 33 - 39.

– 1971. "Equivalence, congruence and deep structure". In: *Papers in contrastive linguistics*. Edited by Gerhard Nickel. Cambridge: Univ. Press. 37 - 48.

Kuryłowicz, J. 1948. "Les structures fondamentales de la langue: groupe et proposition". In: *Esquisses linguistiques*. 1960, Wrocław-Kraków: PAN.

Lado, R. 1966. *Linguistics across cultures*. Ann Arbor: The Univ. of Michigan Press.

Langedoen, D. T. 1969. *The study of syntax*. New York: Holt, Rinehart and Winston.

Lyons, J. 1963. *Structural semantics*. Oxford: Blackwell.

– 1968. *Introduction to theoretical linguistics*. Cambridge: Univ. Press.

Marton, W. 1968. "Equivalence and congruence in transformational contrastive studies". *Studia Anglica Posnaniensia* 1. 53 - 62.

McCawley, J. D. 1971. "Prelexical syntax." *Monograph series on languages and linguistics* 24. 19 - 33.

Milewski, T. 1970. "Voraussetzungen einer typologischen Sprachwissenschaft". *Linguistics* 59.

Nemser, W., Vincenz, I. 1971. "The indeterminacy of semantic interference". (Mimeographed).

Neuse, W. 1962. *Deutscher Sprachgebrauch*. New York: Holt, Rinehart and Winston.

Nida, E. A. 1964. *Towards a science of translating*. Leiden: Brill.

— 1971. "Semantic components in translation theory". In: *Applications of linguistics*. Edited by G. E. Perren and J. L. M. Trim. Cambridge: Univ. Press. 341 - 348.

Rozwadowski, J. 1904. *Wortbildung und Wortbedeutung*. Heidelberg, C. Winter.

Sweet, H. 1913. *Collected papers*. Oxford.

Шаумян, С. К. 1965. *Структурная лингвистика*. Москва: Наука.

Ullmann, S. 1959. *The principles of semantics*. Glasgow: Jackson, Son and Co.

Zabrocki, L. 1968. "Informacje o nadawcy i odbiorcy na płaszczyźnie langue". *Slavia Occidentalis* 27. 297 - 303.

— 1969. "Signalebene und grammatikalische Informationen". *Mélanges pour Jean. Fourquet*. München: Hueber.

A SEMANTICALLY BASED APPROACH TO LANGUAGE DESCRIPTION AND ITS POTENTIAL IMPACT ON THE TEACHING OF FOREIGN LANGUAGES

ROLF BERNDT

Rostock University

A

I

In spite of extraordinary intensification and expansion of scientific language studies in our century, especially in the past three to four decades, the problems of how to approach the description of the phenomena of language most effectively can by no means be said to have been solved already. This holds true of the description of the grammar of concrete individual languages as well as that of 'pairs' of languages aimed at, for example, in 'contrastive structure studies' or 'contrastive grammars', the main concern of which is to discover and systematically represent interlanguage commonalities, similarities, and differences between a particular native language and a certain target language.

The procedures of linguistic description followed in the various approaches may, on the one hand, be judged from purely linguistic aspects, mainly from the point of view of the adopted linguistic theory in general. They may, on the other hand, — especially if it concerns research in the field of applied linguistics (in language teaching), as in the case of contrastive — syntactical, phonological, or other — analyses or similar projects — also be examined from the point of view of the utility or applicability of the particular descriptions to the solution of practical problems of teaching and learning the languages under consideration.

Both aspects, linguistic theory and the practical teaching of foreign languages, will — as far as this is possible within the limitations of the space available — be taken into account in the present contribution.

If one leaves the so-called 'traditional' or 'conventional scholarly grammars' out of consideration here and restricts oneself to the more recent approaches to the phenomena of language that have met with a great response in linguistic circles, one may, with some justification, describe all of them — whether behaviourist-oriented taxonomic structuralist linguistic analyses or descriptions along the line of the so-called 'standard theory' of transformational generative grammar as initiated by Noam Chomsky — as syntactically (or, at least, non-semantically) based approaches to grammar.

All of them centre attention primarily on the formal — syntactic or phonological — properties of linguistic utterances, their phonetic or syntactic form, or, in other words, on the study of utterances as 'syntactical units', 'syntactic structures' or 'sound structures', whether physically manifest or 'superficial' or of the more abstract, 'deep' or 'underlying' kind.

The earlier of the two major directions in the study of grammar, 'structural descriptions' or 'descriptive structuralist grammar', professedly restricted its representation mainly (if not exclusively) to 'outer' "linguistic forms... of independent utterances" (Fries 1952 : 23) as "syntactical unit[s]" (Fries 1952 : 31) or "formal patterns of sentences" (Fries 1952 : 36) and expressly rejected "the using of meaning as the basis for ... grammatical analysis" (Fries 1952 : 55). It was, as is widely acknowledged today, obviously beyond the scope of its possibilities (and, admittedly, outside the intentions of its initiators) to adequately describe what essentially contributes to making human languages what they are, namely the fact that all of them provide the means for expressing one's thoughts in a variety of ways or, to quote structuralists such as Charles C. Fries themselves, for putting "the same content ... into a variety of linguistic forms" (Fries 1952 : 19), and allow for it that "derselbe Gedanke in verschiedenen Sätzen ausgedrückt werden" kann, "ebenso wie der gleiche Satz zum Ausdruck verschiedener Gedanken dienen kann" (Wygotski 1964 : 301).

To illustrate this briefly, synonymy at the sentence level is found, for instance, in cases like

(1) (i) US helicopters have flown more Saigon regime troops from South Vietnam to Cambodia
(ii) Pilots of the US armed forces have flown more Saigon regime troops from South Vietnam to Cambodia by helicopter
(2) (i) This room has three windows
(ii) There are three windows in this room
(3) (i) It seems to me that Jack resembles Peter
(ii) I have the impression that Jack bears resemblance to Peter
(iii) (According) to my mind Jack is similar to Peter
(iv) I think that Peter and Jack are similar (to each other)
(4) (i) John may have gone to London (by car)
(ii) It may be that John has gone to London (by car)

(iii) It is possible that it is true/the case that John has gone to London (by car)

(iv) I consider it possible that (it is true that) John has gone to London (by car)

(v) It $\left\{\begin{array}{l}\text{may be}\\ \text{is}\left\{\begin{array}{l}\text{possibly}\\ \text{perhaps}\end{array}\right\}\end{array}\right\}$ true that John has gone to London (by car)

(vi) John has $\left\{\begin{array}{l}\text{possibly}\\ \text{perhaps}\end{array}\right\}$ gone to London (by car)

Sentence (4) (i) (as well as others of this group) may, at the same time, serve as an illustration of what is sometimes called homonymy at the level of the sentence. For example, it leaves open the question of whether John has gone to London alone and as driver or with somebody else driving the car.

Chomsky-oriented studies of language of the 'classical' transformational generative kind, in their attempts to overcome apparent inadequacies or inherent limitations of preceding structural descriptions, have, since the publication of *Syntactic Structures* in 1957, directed their efforts towards penetrating more deeply into non-observable layers of language and setting up 'deep' or 'underlying' syntatic structures. In spite of notable advances beyond the limits of descriptive structuralist approaches, however, the limitations of the classical transformational generative approach themselves have become more and more apparent in recent years. Thus it seems highly doubtful today whether even a 'revised' "standard theory" of transformational generative grammar will ever enable linguists to tackle fully those problems whose solution was entirely out of the reach of descriptive structuralists.

It is true, of course, that the 'standard' transformational generative theory does not principally bar the way to associating meaning with ('deep') syntactic structures, and thus markedly distinguishes itself from descriptive structuralism. In its representations of the 'meaning-form relations', however, the standard theory assigning priority or centrality to deep structures to be generated in the syntatic component, adopts a 'deterministic' view hardly suited to adequately reflect the complicated character of these relations.

According to this theory, the deep syntactic structure of a sentence is "the abstract underlying form which determines the meaning of a sentence" (Chomsky 1966 : 57). "The underlying structure ... determines the semantic content" (Chomsky 1965 : 15ff). It "expresses those grammatical functions" (Chomsky 1968 : 26) and "relations ... that determine the meaning of a sentence" (Chomsky 1968 : 26) or "play a central role in determining the semantic interpretation".

Descriptive adequacy will, in our opinion, however, scarcely be attainable without recognizing "the dialectically contradictory character of the interrelatedness of syntactic and semantic structures" (Berndt 1971 : 6) and thus acknowledging the fact that "linguistic signs and thoughts are indissolubly linked with one another, but this linkage is dialectically contradictory" (Klaus 1965 : 330; translated from German).

Apart from — essential — implications with regard to the adequacy of the theoretical foundations of such approaches to language description, it seems to us that factors such as the impossibility of taking the dialectically contradictory character of the content-form relations fully into account also negatively influences the applicability of the results of such descriptions to language teaching purposes.

Facts such as these, that one and the same judgment, for example, may be expressed in differently structured sentences, that there are a number of ways in which we can transfer a thought to others, or that many different sentences may have the same meaning content while, on the other hand, one and the same syntactic structure or pattern may very well permit conveyance of a number of relationally different semantic structures (cf. Berndt 1971 : 18), or that the same sentence may be used to say quite different things, can obviously not be completely ignored in foreign language teaching either.

In our opinion, what reduces the 'usefulness' of grammatical descriptions giving precedence to 'outer' or 'inner' syntactic construction over semantic organization for language teaching purposes or makes their 'optimality' questionable, at least, is, amongst other things, this very same fact, so often adduced as an argument against semantically oriented approaches, that "the same meaning content can be put into a variety of linguistic forms". What impairs their value for practical teaching and learning purposes but is absolutely inevitable in grammatical descriptions of the descriptive structuralist kind, namely the separation of language phenomena in neglect of semantically relevant connections between them, on the one hand, and. on the other, the subsummation of what from the point of view of semantic relationships are widely differing phenomena purely because of formal syntactic sameness or similarity, will, as far as we can see, to some — probably not inconsiderable — extent not be avoidable for transformational generative grammar either.

2

One of the major objectives of foreign language teaching (FLT) is obviously to develop 'communicative competence' ('Kommunikationsfähigkeit') in the learner to an extent "which matches, at least in part, that of native speakers of the language to be learned" (Ritchie 1967 : 68). In other words, what FLT aims at, is, foreign language mastery to an optimally high degree, unthinkable without the development of mental abilities, and first and foremost the ability to use the foreign language for communicative purposes, or communicate effectively in the FL, also called 'Sprachbefähigung', 'linguistic ability' or 'capacity' for the production and perception of maximally many utterances in the language to be learned, i.e. "not the mere ability to mouth the utterance ..., not the mere ability to understand the utterance", capability not only of "saying and understanding ... but saying with understanding" (Newmark 1966 : 223ff).

Somewhat more explicitly we might, perhaps, say that what FLT has to achieve is to enable the student to express his thoughts, convictions, his feelings and emotional state, etc. in the foreign language, to realize his "intention[s] of getting something over to somebody else, modifying his behaviour, his thoughts, or his general attitude toward a situation" (Thorne 1967 : 68) etc. as well as to understand messages communicated by other speakers of that language.

Linguistic research with the objective of supplying results of optimal 'utilizability' for the practical teaching of foreign languages cannot, in our opinion, be reduced to viewing language as 'language per se', 'language as form or structure', but will, in accordance with the above mentioned goals of FLT, have to attribute essential importance to the so-called 'communicative — informative' function ('kommunikativ-informative Funktion') of language.

Such an approach to the phenomena of language will, therefore, of necessity, have to differ from that of N. Chomsky, for example, who expressly denies the importance of this function for linguistic theory: "It is wrong to think of human use of language as characteristically informative, in fact or intention. Human language can be used to inform or mislead, to clarify one's own thoughts or to display one's cleverness, or simply for play. If we hope to understand human language and the psychological capacities on which it rests, we must first ask what it is, not how or for what purposes it is used" (Chomsky 1968 : 62).

Separating 'human language' as 'linguistic structure' or 'a structural system' — partially or entirely — from 'human use of language', or attempting to study it in isolation from the basic question of 'how and for what purposes it is used' means, at the same time, severing its connexions with all other "intellectual and practical-concrete activity in society"[1], or, at least, blurring these connexions, passing over the social character of language, the fact of its being socially conditioned, and taking no account of the "social nature of the human essence as the basis both for the emergence of his linguistic ability and for his actual use of language" (ZISW 1972 : 25).

In view of these facts we are inclined to give preference to conceptions according to which "for us the system of language ... has no existence detached from the actual use of language. Rather, it is a totality of regular and law-governed features and characteristics of language use which are objectively connected with, and related to, each other"[2]. Both sides of this activity–indissolubly linked with, and in, language–'cognitive' or 'mental activity' (by which we here understand reflections in the mind of non-verbal as well as verbal states of affairs, i.e. perception of linguistic utterances) and 'communicative activity' are obviously to be considered as two sides of an essentially social activity "in which individuals and social groups control and regulate their behaviour reciprocally, the control and regulation taking place by way of (human) consciousness" (ZISW 1972 : 6) and "important mediating, co-ordinating, planning and guiding functions are carried out" (ZISW 1972 : 25).

---

[1] ZISW 1972: 22 (this and the following quotations from ZISW 1972 have been kindly translated from the German original by my friend and colleague, Mr. P. M. Plant, M. A.).

Language teaching with the aim of enabling the learner to perform communicative activity in the second language, in our opinion, needs linguistic descriptions in which especial consideration is paid to language in its capacity as the prime medium of exchanging messages in society, as a historical product, a "medium of exchange ... created by and for society" (Bolinger 1968 : 300) or "a means through which interaction between human beings takes place" (Smith 1969 : 90) or "without which ... significant social intercourse is hardly possible" (Sapir 1970 : 25).

However, according to N. Chomsky himself, this is no concern of the 'standard theory' of transformational generative 'grammar', neither is it of descriptive structuralist representations. It obviously requires attempts at approaching the study of language from another, different angle.

3

With regard to the subject matter of grammatical description we fully share the view according to which "the theory of grammar examines the totality of language but examines it from a special abstractional point of view ... the semiotic ... . The subject matter of the theory of grammar comprizes the organization and structural composition of each of the two sides ... (the components and organizational relations) of the cognitive contents and (the components and organizational relations) of their possible forms of utterance ... in relation to the organization and structural composition of what in each case is the other side, ... the laws to which the reciprocal relations between the content and forms of ... utterances conform"[3].

---

[2] ibid., p. 16. The original version is "Das Sprachsystem hat für uns keine von der wirklichen sprachlichen Tätigkeit abgesonderte Existenz. Es ist vielmehr eine Gesamtheit von regelmässigen, gesetzmässigen Zügen und Merkmalen der sprachlichen Tätigkeit, die objektiv miteinander verbunden und aufeinander bezogen sind".

Confronted with the problem of what to consider the units forming the basis of grammatical description, it is useful, perhaps, to remember that the 'communicative competence' to be developed in the learner in foreign language teaching is often, somewhat generally, defined as the ability to understand and produce utterances in this language. What is meant here by 'utterance', 'linguistic utterance' or 'language-utterance' is a sort of 'communicative unit', occasionally described as the "smallest operational unit on the level of meaningful continuous discourse" (Leont'ev 1970 : 333; translated from Russian) in the sense of a number of successive, or a sequence of, utterances exhibiting a larger or lesser degree of contextual cohesion, a 'basic unit of communication'.

In view of the apparent impossibility of achieving anything like a 'grammar of discourse' ('Textgrammatik') in the near future, it seems reasonable to us, for the time being, to keep within the limits of the linguistic utterance for descriptive purposes, too, and to regard it as the most adequate unit from which to start our description.

In referring to the linguistic utterance as the basic unit of description we are primarily guided by matters of content, by the character of the 'utterance' as — at least, minimally 'closed' — 'message' or, in other words, a linguistic unit capable in itself, that is without any 'supporting' contextual or other situational factors, of bearing a certain information content or 'Sinngehalt' or suited alone to express a thought. (We are fully aware of the definitional problems connected with precisely determining the limits of what constitutes an 'utterance' but do not, at present, consider definition the task to be fully solved before any further steps can be taken.)

In a similar way, at least, K. Ammer calls the ,,abgeschlossene Äusserung" as ,,sprachliche[s] Ganze[s]" ,,eine ... höhere ... Leistungseinheit der Sprache ..., in der die Vorstellungskonstellation des Sprechers dem Gesprächspartner erschlossen wird" (Ammer 1958: 64ff).

What also has a bearing upon questions concerned with putting the description into practice, is obviously the possibility of further differentiation between 'simple', 'elementary', or 'minimum' complete utterances on the one hand, and 'complex' or 'expanded' utterances (sometimes also called 'modification structures') serving mental reflections of 'complex' or 'complicated' states of affairs, on the other.

---

[3] ZISW 1972: 9 ff. The original version is "Die Grammatiktheorie betrachtet das Ganze der Sprache, sie betrachtet es aber unter einem speziellen Abstraktionsgesichtspunkt ..., [dem] semiotische [n] ... Den Gegenstand der Grammatiktheorie bilden die Gliederung und der Aufbau jeder der beiden Seiten ... die Einheiten und Beziehungen der Gliederung der Bewusstseinsinhalte [und] die Einheiten und Beziehungen der Gliederung... [ihrer] möglichen Äusserungsformen ... in bezug auf Gliederung und Aufbau der jeweils anderen ..., die Gesetzmässigkeiten des gegenseiten Bezugs zwischen Inhalt und ... Formen ... der Äusserungen".

The relevance of this distinction for practical teaching purposes remains valid, in principle, in spite of the apparent existence of limits to the splitting up of communicative units into 'elementary' complete utterances which cannot be exceeded in ultimately practice-oriented descriptions without reducing rather than raising their practical value, but for the setting of which precise, objective criteria will scarcely be adducible. (Decisions here will certainly have to depend to some extent upon the relations existing between particular source and target languages.)

It seems advisable, at this point, to expressly caution the reader against schematically equating

'simple utterance' with 'simple' (or basic) sentence and
'complex utterance' with 'complex' (or complicated) sentence.

As will soon be shown in the later passages, even the 'simple' or 'elementary' utterance is a semantically complicated structure, the components of which will, in a full representation, have to be strung together in a 'conjoined structure' bearing the outer form of a complex sentence. Where 'simple utterances' appear in the form of 'simple sentences', which is, of course, very possible, this has obviously to be considered as due to secondary 'condensations' (lexical or syntactical, in kind) in the process of the progressive shaping of the mental, semantic structures and their conversion into physically manifest speech units. What is found in actual 'simple sentences' may, in other cases, also be the result of condensations of 'complex utterances'.

4

As concerns the organization or construction of 'language utterances' as basic units of linguistic description, we shall confine ourselves here to some very general remarks only and try to make our representations more explicit, in part at least, in the following exposition.

'Linguistic utterances' in the sense explicated, may be regarded from the aspect of their character as physically actualized, material units, i.e. phenomena of objective reality, and, in their capacity as mental or ideal units, as present in the minds of the speakers of a language and thus having psychological reality. Language units of this sort can obviously be said to consist or be made up of different layers of structure exhibiting a particular 'rule-determined' internal organization and systematically interrelated. It is usual, therefore, to ascribe three structural levels to linguistic utterances: semantic structure, syntactic structure, and 'sound structure' (to be linked somehow with orthographic structure). (For purposes of description aimed at in our project the latter will be of interest only, or mainly, at any rate, as far as matters of intonation contours of the relevant utterance types are concerned).

It is theoretically possible on each of these levels (or structural layers) of linguistic utterances to distinguish specific functioning units and relations between these units, or, in other words, particular relational patterns ('Relationsgefüge') and categories. These are, apart from 'sound patterns' or 'patterns of intonation' (about which nothing more can be said in the present paper), what may by called

patterns of semantic relations and (relational) categories and their syntactic 'counterparts':

patterns of syntactic relationships and categories.

Any model of grammatical description aiming at descriptive adequacy will, in accordance with the three-levelled organization of linguistic utterances, certainly have to comprise three main levels of representation (or 'components'), namely the semantic level (or content level), the level of syntax (or syntactic level), and the phonological level, which, in themselves, permit further subdivisions. In this connexion we must content ourselves with directing attention to the obvious possibility of distinguishing two sub-levels or components at the content level which we will tentatively call the level of semantic relations and the lexicon (sometimes also called the 'level of lexical representations').

5

Although there can be no doubt of a 'full' description of linguistic utterances having to cover representations of their construction at each of the three major levels mentioned, the crucial question essentially influencing the character (? and adequacy) of the description is evidently the question of the level from which to start in this undertaking.

In view of the apparent limitations of approaches to the study of 'language structure' in the way of descriptive structuralist or 'classical' transformational generative grammar — limitations concerning the theoretical foundations as well as the practical applicability —, further inquiries into the possibilities of a non-syntactically based approach to the phenomena of language seem to us not only legitimate but at the same time highly worth-while and promising.

What we propose, therefore, is to choose the semantic level as the descriptive base and first of all consider the linguistic utterance as a means of transmitting information ('message'), as a 'meaning-bearing unit', not the potential syntactic forms (or 'structures') available in the particular individual languages to express the semantic content under consideration.

The potentiality, inherent in any language, of producing an infinite number of linguistic utterances, admittedly forbids starting descriptions at this level with full representations of the meaning content of the single individual utterances as occurring in objective reality (and as such absolutely indispensable as source material to the student of language). It is obviously necessary, therefore, to look for a higher level of abstraction as the origin for describing the semantic structure of language utterances.

What we are looking for is, in our opinion, the level of semantic relations from which it seems possible to us to gain access to 'underlying' semantic relational structure which the particular individual utterance in its capacity as a unit of content shares with other utterances of the same type (type of utterance).

The utterance as occurring at this level of description is, in other words, an abstraction from those semantic features and properties which make up its special character as single free, or individual, utterance. It contains only those most general content features characteristic of the whole group of utterances belonging to the same type and representing, so to speak, its 'basic content'. The patterns of this level are, in a certain way, 'communication-oriented' forms of the reflection of reality in mind, not essentially dissimilar from what Rosenthal — Yudin call "forms of the reflection of reality in thought ... which themselves reflect the most general features of reality" (Rosenthal and Yudin (eds.) 1967 : 252ff).

What we are attempting to get at on the level of semantic relations might well be described, too, as 'constructional frames', 'skeleton structure', (also called occasionally 'plans' or 'programmes' of language utterances) or, simply, frames into which particularizing, identifying and other items or details can be fitted, and which, in this way, are convertable into 'simple' concrete individual utterances capable of being conjoined with other 'simple' utterances (of the same or another type) into 'complex' cognitive contents, 'komplexe Bewußtseinsinhalte').

To make this more explicit (expressly restricting ourselves to what we have called 'simple' linguistic utterances), will be the main concern of the rest of this paper. Before doing so, it is not out of place, perhaps, to briefly touch upon questions of the potential impact of such an approach to linguistic description on the teaching of languages (in accordance with the objectives outlined above).

In connexion with further efforts to increase the effectiveness of foreign language teaching with the support of linguistic research, there are three aspects which seem to us to be especially worth mentioning.

(1) An approach to the phenomena of language as suggested above will hopefully provide descriptions which in our opinion, will enable teachers to — free 'grammatical teaching' from one-sided confinement to 'outer' or 'deeper' — syntactic forms and thus make it possible to dismiss 'purely' syntactic patterns without, of necessity, merely desisting from 'pattern prac-

tice' or employment of 'Leitschemata', 'Modellkonstruktionen', or 'Konstruktionsmuster' in language teaching classes, textbooks, programmes, etc.

'Syntactic patterns', whether of the descriptive structuralist sort and thus "leaving the underlying structure unrevealed" (Bolinger 1968 : 295) or going further back to 'deep structures' to be generated in the syntactic component of 'standard' transformational grammars, have, in spite of more or less far-reaching dissimilarities, obviously one thing in common which inevitably reduces their utility for language teaching purposes: the concrete individual utterances derivable from one and the same pattern or to be formed by using a given framework are, of necessity, highly heterogeneous with regard to their semantic content or organization. What is essential to the learner, at least until he has acquired a relatively good basic command of the foreign language, 'evenly proportioned' or equal concentration on form and content, or morpho-syntactical and lexical matter, to an optimally high degree, is evidently difficult if not impossible, to achieve in pattern practices based on syntactic patterns only.

Therefore maintaining the 'sentence pattern' or 'formal pattern of sentence' unchanged does not, in many cases, at least, relieve the learner of the necessity of 'leaps' in matter of content and of "imagining a whole fresh situation for every utterance while keeping up with the mechanical requirements of the exercise" (Newmark and Reibel 1968 : 238). Especially illustrative examples of this are found in 'classical' behaviourist-oriented pattern drill books in which no attention is paid to any aspects of the 'inner' form of linguistic utterances. Thus, within one and the same lesson, for instance, sentences such as the following are given to be changed according to the example:

We passed a girl. She was standing on the corner.
⇒ We passed a girl standing on the corner.
(1) They spoke to the man. He was selling shoes.
(2) We found the boys. They were playing baseball.
(3) They thought of me. I was studying in my room.
(4) I could feel my heart. It was beating rapidly.
(5) I saw him. He was going to the movies, etc.

(Lado and Fries 1965 : 256 ff).

Although the required formal operations ("combin[ing] the statements ... to make a shorter utterance") are undoubtedly the same in all cases, one will certainly look in vain for any systematic connexions with regard to the semantic content of the sentences under consideration. If we are inclined to accept opinions according to which "structural drills, in which the student practices switching quickly from an utterance appropriate for one situation to another utterance appropriate for quite another situation, are ineffective in principle

(Newmark and Reibel 1968 : 238)", we will obviously have to apply the same judgment without any restrictions to 'drills' of the kind just mentioned.

We are not at all against 'pattern practices' and do not in the least doubt their usefulness — or even indispensability — in foreign language teaching. But we believe in the possibility of 'pattern practices' of a new kind, more efficient and theoretically more soundly based than 'classical' 'pattern practice' resting entirely on theoretical principles of behaviourism, the inadequacies of which can scarcely be overlooked any longer. Changes in this as in other respects may very well be brought about by a semantically based approach to a description of the phenomena of language.

What is particular and noteworthy about the 'input material' of the level of semantic relations — the semantic relational structures of linguistic utterances — is the fact that the 'constructional frames' here are not 'purely' semantic in the same way as the patterns of structural descriptions or the 'deep structures' of 'standard' transformational generative grammar are (or are considered to be) 'purely' syntactic. 'Relational patterns' as occurring at the first level of a semantically based description are patterns of semantic (or lexical) as well as of (morpho-) syntactic relevance. It is this very same fact which, in our opinion, will open up entirely new possibilities of 'pattern practice', possibilities of using one and the same 'constructional frame' for a variety of purposes, such as

— the development of control of syntax by concentrating on the (morpho-) syntactic organization of linguistic utterances of the particular type under consideration,
— the step-by-step expansion of syntactic control by enlarging upon potential variations in the syntactic structuring of the relevant utterances,
— the systematic expansion of vocabulary by concentrating on the insertion of appropriate lexical items as well as on the possibilities of 'lexical condensations',
— centering on the intonational patterning of the specific utterance type, etc.

or (perhaps to an even greater extent) possibilities of substituting specific components of the relational structure while keeping the others unchanged and proceeding in the same ways just described or in others which cannot be gone into at this point.

(2) What we have already hinted at in the preceding passage, but what seems to us to be worth pointing out more clearly, is the apparent possibility — opened up by a semantically based approach — of overcoming the usually sharp division between 'grammatical teaching' or teaching (exercises, etc.) designed for the 'acquisition of grammatical knowledge' and 'development of the productive control of syntax' on the one hand, and the 'teaching or expansion of vocabulary', on the other, which is so characteristic of much language teaching as it is practised today.

44

Conscious and purposeful consideration of criteria of 'semantic as well as of syntactic relevance' in the composition of 'texts' to be used in a systematically arranged language teaching course must, obviously, be considered another means of increasing the effectiveness of foreign language teaching. Proceeding in this way will, at the same time, enable us to establish closer conformity to 'linguistic reality' in which 'vocabulary' and 'grammar', "das Lexikalische und das Grammatische" (Wissemann 1961 : 5), do not exist in isolation from each other but in a relation of "gegenseitiger Durchdringung" ('mutual penetration') and constitute, as H. Wissemann puts it, "in einer innigen Funktionsgemeinschaft ... miteinander den Sinn des Satzes" (Wissemann 1961 : 1).

It is for this reason, too, that we prefer to use 'grammar' as the more comprehensive term under which lexico-semantic as well as morpho-syntactic and phonological phenomena may be subsumed. Opinions, according to which 'grammar' plays a subordinate role in FLT — the main concern of which is to be considered the teaching of knowledge of, and the development of skills in the use of, foreign language vocabulary, — clearly betray an unacceptably narrow view of what constitutes 'grammar' and entirely fail to grasp the systematic interrelatedness of the phenomena of language.

What is ignored by adherents of this view is, amongst other things, the fact that, given a definite number of lexical elements to assign to or string together into a single utterance (as, for example, *boy*, *book*, *girl*, *give*, additionally marked, perhaps, as ⟨± definite⟩), what is actually given is more than the simply lexical. The 'independent' 'meaning-bearing' constituents of the utterance(s) to be formed out of them cannot properly be said to be mere 'bearers' of so-called 'lexical meaning' or 'semantic meaning' or, in other words, representations of mental pictures of elements of state of affairs which as such have nothing to do with what is traditionally called 'grammatical meaning'. In reality, they do, in fact, also contain 'syntactically relevant information'.

In this sense, one can certainly agree with H. Wissemann who expresses the opinion that 'it is very possible' "vom Bestande der lexikalischen Zeichen eines Satzes aus weite Bereiche des Grammatischen zu ergänzen und somit seinen Sinn zwar nicht eindeutig aber doch in wechselndem Grade der Annäherung an das Gemeinte zu erfassen", that the "Ergänzbarkeit des Grammatischen vom Lexikalischen aus", however, "... nicht das Grammatische in seiner Gesamtheit, sondern nur einen Teil des Grammatischen ... betrifft" (Wisseman 1961 : 4 - 5).

It should be clear to everybody that as soon as the isolated items *boy*, *book*, *girl*, *give* are selected from the lexicon of English, for instance, to be treated as constituents of one and the same linguistic utterance, the number of states of affairs to be reflected in and expressed by utterances containing these four elements is definitely limited and the possibility of combining these 'words' is clearly restricted in accordance with the mutual relations which can be entered into by the elements of the states of affairs referred to by the lexical items under consideration. Thus, the inherent 'combination restrictions' clearly confine 'acceptability' to (5) (i) and (ii) of the following structures and block combinations as those illustrated in (5) (iii) to (5) (vi)

(5) (i) a boy give — $\left\{\begin{array}{l}\text{a book to a girl}\\ \text{a girl a book}\end{array}\right\}$
(ii) a girl give — $\left\{\begin{array}{l}\text{a book to a boy}\\ \text{a boy a book}\end{array}\right\}$
(iii) a girl give a boy to a book
(iv) a boy give — a girl to a book
(v) a book give — a boy to a girl
(vi) a book give — a girl to a boy

Consistently taking account of connexions or interrelationships such as these and systematically utilizing them for language teaching purposes will certainly be greatly facilitated by descriptions of the kind advocated in this paper.

(3) Approaching the description of linguistic phenomena from a semantic base will, in our opinion, not only give the learner an insight generally into domains beyond 'pure' outer syntactic form which are closed to him in the mechanical drills of behaviourist-oriented pattern practice, but we are convinced, it will also put him in a position of even going beyond the 'deep structures' of classical transformational generative grammar and of mentally penetrating more deeply into the phenomena of the language to be learned and their interrelations. It will permit not only 'insight into the syntactic structure' but 'intellectual understanding' in the more comprehensive sense of 'mentally grasping' the things to be learned as the only, or, at least, the best way to 'commanding' or 'controlling' them, without in any way demanding a return to the 'grammaticizing way' of language teaching or negating, in the slightest that "understanding and performance are inseparable" (Bolinger 1968 : 298).

B

The main concern of the following chapter will be to give a first, tentative, survey of the components of the organization of the 'simple' linguistic utterance (in its capacity as 'basic unit' of language description) at the level of semantic relations. We are fully aware of the lack of uniformity and the differences in the degree of abstractness and detailedness of the representation — unfortunately inevitable at the present stage of research — and have no doubt that a number of the assumptions we shall make here will have to be made more precise, to be modified or wholly abandoned in the course of further advances in our state of knowledge, and that greater adequacy of the description requires a higher degree of formalization than that to be achieved in the present paper.

We should also like to point out, from the very beginning, that the following analyses of 'simple linguistic utterances' are restricted to 'direct' utterances (as opposed to reports of somebody else's statements, etc.).

I

In representing the underlying semantic relational structure of 'simple linguistic utterances', which, in our opinion, can be described as language invariant or, at least, not bound to any particular individual languages, it seems possible — and legitimate for descriptive purposes — to distinguish a number of major components which themselves can be further divided into sub-components. As far as we can see at present, analyses of the semantic 'make-up' of linguistic utterances will have to take into consideration such kinds of 'content elements' as we here propose to subsume under four main components or constituents of their underlying relational structure, which we will, for lack of more adequate terms, very provisionally call

Propositional Frame,
Reference Frame,
Speaker Attitude and
Communication Situation.

By propositional frame' we here understand that part of the relational pattern of the linguistic utterance in its capacity as a unit of content which serves the reflection of states of affairs or, more precisely, perhaps, the 'projection' of — 'direct' or 'indirect' — mental pictures of specific sections of the primary material or social reality (as far as subsumable under the notion of 'state of affairs') and which is sometimes also called the 'logico-semantic component'.

Similarly we might say that the component under consideration serves the 'input' of 'cognitive content'. We thus distinguish, in accordance with the authors of 'Obščee Jazykoznanie', the "cognitive content as one of the obligatory components of linguistic meaning". (Obščee jazykoznanie 1970 : 400; translated from Russian) 'Cognitive content' is to us in this connexion a certain product of the cognitive activity or mental apprehension of man, either in the sense of 'direct' mental apprehension or reflection by the speaker himself or in the sense of a 'mediated' product of the cognitive or mental activity of other people.

In order to prevent misunderstandings it is helpful, perhaps, to point out that from the potential set of states of affairs to be reflected in the mind of the speaker we have expressly excluded linguistic utterances themselves in their capacity as 'messages' or physically manifest phenomena of objective reality as 'receivable' by a listener, for example. The 'images' of states-of affairs to be 'shaped' within the 'propositional frame' are propositions as mental pictures of non-verbal actual, past, or possible (thinkable) — material or ideal — states of affairs.

Ideally, the mental picture to be dealt with in this part of the underlying relational structure of the 'simple linguistic utterance' should be that of a so-called 'simple' or 'elementary' state of affairs (as opposed to a 'complicated' or 'complex' state of affairs made up itself of two or more 'simple' states of affairs), that is, logically speaking, a 'simple' or 'elementary proposition' potentially expansible into a 'complex proposition'.

As far as this is concerned, however, we are still facing many unsolved problems, last not least from the aspect of the utility of our description for practical teaching puposes. Irena Bellert may very well be right here in her opinion according to which "an 'elementary' or 'simple' proposition is, in fact, simple only with respect to its logical predicate. Its arguments, however, may be quite complex" (Bellert 1969 : 38).

The relations in this part of the underlying relational structure of linguistic utterances designed to form a frame for the apprehended or conceived objective content, also called occasionally 'logical', 'cognitive' or 'semantic relations' are, in fact, reflections of "objektive Beziehungen zwischen den Gegenständen und Erscheinungen, z.B. Beziehungen des Objekts und des Merkmals, räumliche, quantitative, kausal-konsekutive u.a. Beziehungen" (Obščee jazykoznanie 1970 : 404 ff), reflections of relations as existing between objects, properties, etc. (or, in the case of 'complex' propositions, between states of affairs) in objective reality or 'ideal' relations occurring between the constituents of mental constructions, for instance.

It is this which distinguishes semantic relations as 'cognitive relations' in an important way from syntactic or, as they are frequently called, 'grammatical' relations (or, at least, part of them) with reference to which Ch. C. Fries rightfully claims that "the actual relation of things in the real situation does not determine the grammatical relations of the words expressing these things in a ... sentence" (Fries 1952 : 177).

2

Not unlike earlier studies in this field we advocate a further decomposition of this component of the underlying relational pattern of linguistic utterances, i.e. their 'propositional frame', into two substructures, the propositional nucleus on core, or, simply 'nucleus', and — the remaining part of the 'propositional frame' for which, for the time being, we have no better term to offer than just 'extra-nuclear component'.

Of these two it is, undoubtedly, the 'propositional nucleus' on which the larger part of attention of earlier and contemporary 'semantically-oriented' studies has been centered and about the structure of which the 'clearest' ideas can be said to exist.

The 'nucleus' as a relational structure within the larger relational structure of the utterance as a whole, not including 'time' or 'modality', can, very generally, be said to consist of two or more 'propositional terms' unequivocally characterized with regard to the relations existing between them and 'free' or 'unbound' as far as their order at this level of description is concerned. The constituents forming the 'nucleus' which serves the reflection of essential features of the relevant type of states of affairs are, speaking somewhat more precisely, the relational notion proper, truly 'simple' or 'elementary' in character and called 'predicate' or 'predicate term' in logic, and the relational constituents ('arguments' in logic) going with it. All of them together form a particular — semantic — construction within which each constituent has its specific place, 'semantic function or role, or exists in specific [sense] relations to the other constituents.

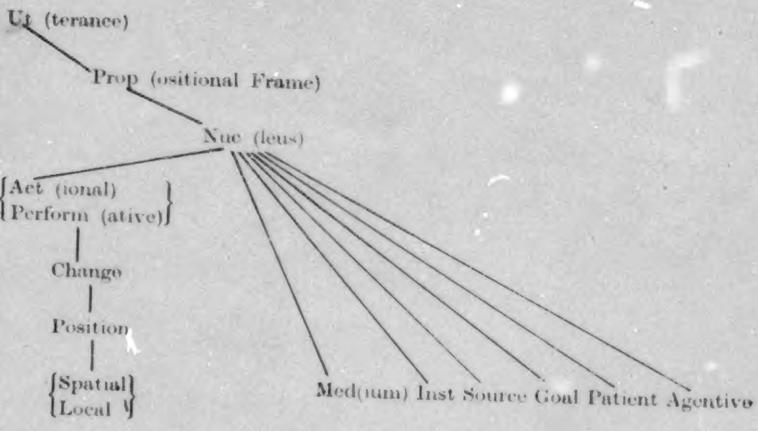
The particular notions serving as constituents of such propositional structures do not yet represent the 'full' mental images of the individual components of actual states of affairs. The relations between these notions or 'concepts', the 'conceptual relations', as mental images of the relations occurring between the (nuclear) elements of material or ideal states of affairs, cover but one component of the conceptual pictures of these elements. What is important, is that what we have here is exactly the syntactically relevant part of their conceptual content.

What makes up the 'propositional nucleus', then, is apart from the predicate term, 'meaning units' in specific 'semantic functions' or 'roles' representing 'the parts that the various persons, objects, or other phenomena may play in the particular states of affairs under consideration'.

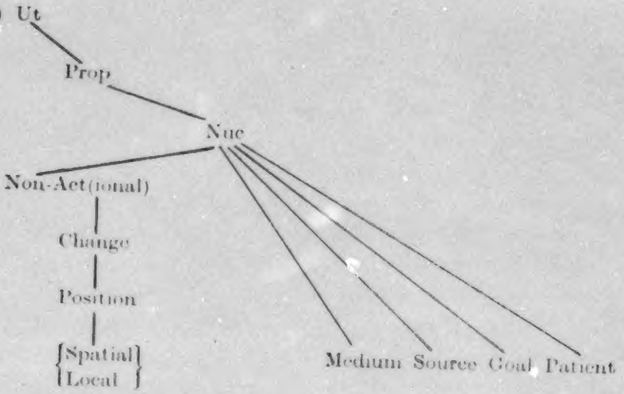
As the available space precludes detailed descriptions, nothing like an 'exhaustive' characterization of the structures representable under the 'propositional nucleus' can be aimed at in the present paper. It is hoped, however, that the following tentative representations of a group of related patterns will serve to give a very rough impression, at least, of what may be covered of the semantic structure of linguistic utterances in this particular subcomponent.

Concrete individual utterances which, as far as their 'propositional' component is concerned, can be said to have underlying relational structures of this sort (but have undergone different kinds of changes and lexicalizations or

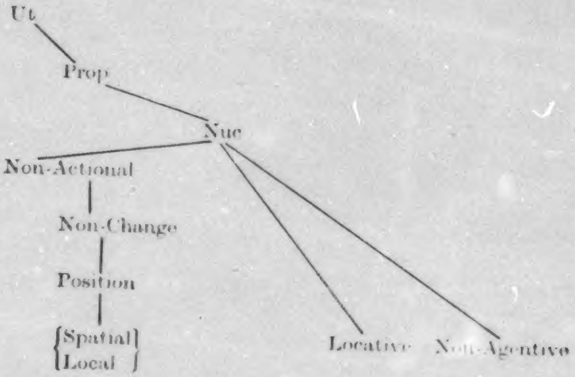
(1)


Ut (terance)
Prop (ositional Frame)
Nuc (leus)
Act (ional)
Perform (ative)
Change
Position
Spatial
Local
Med(ium)
Inst
Source
Goal
Patient
Agentive

(2)


Ut
Prop
Nuc
Non-Act(ional)
Change
Position
Spatial
Local
Medium
Source
Goal
Patient

(3)


Ut
Prop
Nuc
Non-Actional
Non-Change
Position
Spatial
Local
Locative
Non-Agentive

lexical condensations in the process of their conversion into physically manifest speech units), such as

(6) At Easter hundreds of people march from London to Aldermaston
(7) John intends to drive down from Edinburgh to London in his (own) car
(8) The American returned to his hotel from the airport
(9) Space-shuttles will soon be carrying passengers to and from space stations
(10) The political prisoners were flown from Brazil to Mexico
(11) He flew from Europe to Tokyo by the route across the Pole

are all to be assigned to structure (1), or, as in the following cases, belong to the second structure,

(12) The boy fell down from the apple-tree onto the ground
(13) He was drifting out [from San Francisco Bay] through the Golden Gate into the Pacific Ocean,

or, are assignable to structure (3)

(14) The $\left\{\begin{array}{l}\text{released political prisoners are in Mexico}\\ \text{American is in his hotel}\end{array}\right\}$ now
(15) The boy lies on the ground.

Before leaving the 'propositional nucleus', we should like to draw attention to the following fact: As what we are concerned with is not states of affairs themselves but reflections of them in the mind of a speaker, it seems to us that structures as represented here will require further 'processing' before being fully suited as 'input' material to the lexicon and the syntactic component. What we mean is that, in order to describe the degree in 'completeness' of the picture of the relevant state of affairs as it exists in the mind of a particular individual speaker, possibilities of further specifications of the relational constituents (ultimately, requirements for 'embeddings') will have to be taken into consideration in the elaboration of the model of description.

Such specifications, whether optimally to be given in the form of 'feature indices' (as here) or in any other way, will probably have to include the following:

⟨±particularized⟩:	not predicted of all elements of a class or, in the case of ⟨−particularized⟩ (which, combined with ⟨+ identified⟩, gives ⟨+generalized⟩), applied to the whole class, e.g. LOCATION
⟨±singularized⟩:	(applicable in the case of countables only) (not) related to one member of a particular class, species or group, e.g. a single LOCATION
⟨±quantified⟩:	(excluded in the case of ⟨+singularized⟩), definitely or indefinitely limited with regard to number, amount size or extent in space or time

⟨±qualified⟩:	modified with reference to quality, condition, etc., or, as in the case of 'location in space or time', further specified with regard to its 'position', e.g. ON THE EARTH, IN EUROPE, IN ENGLAND
⟨±sub-classified⟩:	assigned to a particular sub-class or sub-group of the class under consideration, e.g. TOWN
⟨±identified⟩:	made unique, identified as a separate entity, or restricted to an individual person, animal, town, ship or any other object, e.g. LONDON

In real states of affairs the features mentioned are, of course, existent and thus positive in value. Elements negatively specified in the reflections of these states of affairs in the mind of individual speakers are, therefore, potential 'questioned elements' in the formulation of questions.

3

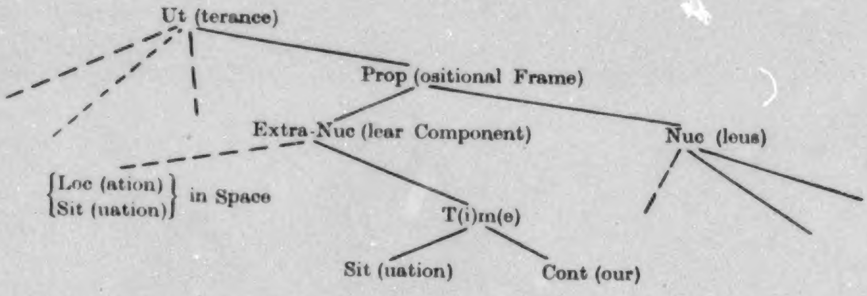
Full characterizations of what makes up the second sub-component of the Propositional Frame, the one that we have called the Extra — Nuclear Component, are difficult to achieve at the present stage of research. As is evident from the construction of simple linguistic utterances such as

(16) I *finished* read*ing* that book *at work yesterday at eleven o'clock*,

there remain a number of elements (those in italic type) not to be covered in the Propositional Nucleus. What we are especially made aware of by examples of the kind just quoted, perhaps, is the fundamental fact that everything occurs in a spatio-temporal situation. It seems highly plausible to us, indeed, that it is objective phenomena relating to this spatio-temporal situation in particular that have to be taken account of in the Extra-Nuclear Component of the Propositional Frame.

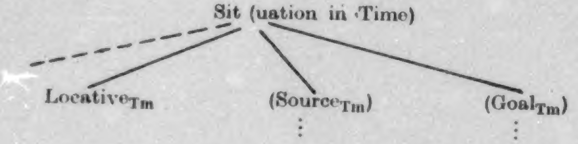
However, we do not feel in a position, at present to say anything substantial about how to handle the location in space of states of affairs in the suggested model of description and, therefore, have to content ourselves with simply pointing to the obvious necessity of including this in a fully adequate description of the semantic structure of linguistic utterances. A somewhat more explicit representation can be given, however, of what in our opinion has to be considered another main constituent of the Extra-Nuclear Component—the Time constituent. This obviously consists of two subconstituents relating to location and distribution in time of the states of affairs under consideration.

What has been distinguished until now of the underlying semantic relational structure of simple linguistic utterances can be graphically represented in the following way:



Of the two time-sub-constituents, the first (i.e. Sit) evidently has to serve the 'input' of 'concrete' details referring, more or less definitely, depending on the state of the speaker's knowledge, to position (location or situation) and — if not clocked by the character of its temporal contour — extension or continuance (duration) in time of the particular action, event, process, or state reflected in the mind.

Without, in any way, claiming 'exhaustiveness' and finally of the representation, the time-situation component might be said potentially to contain elements such as



Each of the relevant constituents may then, in the same way as the relational constituents of the Nucleus, be additionally marked with respect to features such as those given on p. 23f., in order to characterize more fully the 'preciseness' of their reflections in the individual speaker's mind.

The function of the second time-related sub-constituent (i.e. Cont) within the Propositional Frame is to specify somehow "the temporal dimension ... associated with the [particular] action [process or state]"[4], or to establish the "*Verhältnis* ... der Handlung zum Zeitverlauf" (Ammer 1958: 207) or, as it is occasionally put, to reflect 'the *quality*' of the action or state as regards 'momentariness' or 'durativeness', 'completeness' or 'incompleteness', for instance.

Without attempting to submit any definite suggestion as to the exact structuring of the temporal-contour component, the features specifiable in this part of the semantic relational structure, may with some justification, perhaps, be said to include such as given in the following survey:

---

[4] Ridjanović 1972: 119. We gratefully acknowledge the stimulating effect exercised on the present representation by this paper in particular.

(Temporal) Cont(our)		
Temporally (more closely) Limited	Instantive:	done or occurring without any perceptible duration of time, momentary, or point-like
	Extentive:	extending over a period of time and viewed in its entirety or full extent between two definite limits
	Progressive:	moving forward progressively from one point to another on the way to completion, being in progress or under way toward a further stage or specific goal
with no definitely fixed or fixable Time Limits ('Stative')	Permanent:	considered as if continuing to exist throughout an unlimited period of time
	Non-Permanent:	without definitely fixed temporal limits but not unlimited
Having reached Completion	Perfective:	having reached the end, the state of being finished or complete, being brought to an end, to a successful conclusion, into a finished or perfected state, having come to an end
{Recurrent Repetitive} ⋮	{Iterative Frequentative Generic}: ⋮	occurring or performed regularly, frequently, habitually or customarily

Further subdivision proves necessary in the case of the first group of temporal contours, at least. The following distinctions may tentatively be made:

Instantive	Instantive gen(eral):	of momentary actions or events or point-like transitions into another state
	Inceptive:	relating to the very moment of the beginning, the initial point or moment of an action, process or state
	Terminative:	isolating the final point of completion, the point at which an action is carried through toward accomplishment
	{Cessative Discontinuative}:	referring to the instantaneous coming to an end or cessation of an event, process, or action

Extentive	Extentive gen(eral):	relating to the whole period of the existence, the full extent of an action, process, or state from the initial to the terminal point
	Terminative extentive:	covering 'completive' and 'finitive' (as characterized below)
Progressive	{Evolutive Inchoative}:	relating to the initial stage, the first phases of the passing into a certain state (into existence, out of existence, away from a certain condition of being, etc.), the fact of having reached or being in the initial stage
	Progressive gen(eral):	referring to the action or process as being in progress, under way, in full swing, etc.
	Continuative:	relating to action or development as being still in progress, or to continuance in some state or condition
	Conclusive:	referring to the terminal stage, the progressing toward or approaching toward or approaching an end
Terminative extentive	Completive:	relating to the full temporal extent until the final point of completion or carrying through of an undertaking toward accomplishment (with the view more closely directed to the completion than to the beginning
	Finitive:	referring to the period covering the completion of the final part or portion of a process or action

Only a few examples will have to suffice here to illustrate what is to be understood by the various temporal contours mentioned in the preceding survey:

(17) John set out (started) on his way from Edinburgh to London by car (bicycle) at ten o'clock on May 20, 1972 ('inceptive')
(18) John completed (ended) his trip from Edinburgh to London by car at 8 p.m. on May 20, 1972 —
John arrived in London by car at 8 p.m. on May 20, 1972 ('terminative')
(19) John broke off, stopped, speaking in the middle of a sentence ('cessative')

(20) John spent six months in London —
John stayed in London from the end of May until the beginning of July ('extensive')

(21) John covered the distance (route) from Edinburgh to London by car in ten hours ('completive')

(22) John covered the final part of his trip from Edinburgh to London by car in two hours ('finitive')

(23) John is setting out on his way from Edinburgh to London by car ('inchoative')

(24) John is (now) on his way from Edinburgh to London by car.
John is driving from Edinburgh to London ('progressive gen')

(25) John is still on the (his) way from Edinburgh to London by car.
John is still driving from Edinburgh to London ('continuative')

(26) John is covering the final part of his trip from Edinburgh to London by car.
John is approaching London by car ('conclusive')

(27) London is situated on the banks of the Thames ('permanent')

(28) I know English ('non-permanent')

(29) John has (just) arrived in London by car ('perfective')

(30) John has (just) { finished { painting the doors
washing the shirt
cleaning the house
reading/writing the book }
completed(writing) the manuscript ('perfective') }

(31) John usually (always) goes from Edinburgh to London by car ('iterative').

Descriptions of the (semantic) construction of 'language utterances' as 'messages' or 'means of linguistic communicative activity', can definitely not be restricted to the 'cognitive content' or 'mental image proper' of the particular state of affairs, which forms the 'input' to the 'Propositional Frame'. For the 'proposition' in its 'pure' form obviously is an abstraction which, although isolated here for descriptive purposes, does not exist as such in the mind of the reflecting individual.

What is present in the subject's mind is neither an image existing in complete isolation from other cognitive contents nor something purely 'objective' in character but something which is affected somehow by the individual's (intellectual, volitional, or emotional) involvement or commitment to the object of reflection. The character of the reflection, in other words, depends upon the 'inner state' or 'consciousness' of the reflecting subject, his concern with or attitude towards the particular state of affairs in question. In recognizing the subjective element in the mental reflections of the individual one will, on the other hand, however, have to pay equal consideration to the fact of its inseparability from the objective relations existing between the individual and his social environment.

The idea that there are two sides, "zwei wesentliche Funktionen" "die objektive Seite" and "ein ... subjective[r] Aspekt" (Klaus 1969: 117), of the thought to be taken account of, is reflected also in opinions of 'traditional' grammarians such as G. O. Curme, for instance, according to whom "the sentence has two functions: ... it makes a statement, or, in the case of a question, calls for a statement, ... and it is an expression of emotions, attitudes, intentions, and moods present in the speaker..." (Curme 1931: 1).

Before going into the consequences resulting from these facts for descriptions of the organization of linguistic utterances on the content level, or, more precisely, on the level of semantic relations, we should like to draw attention to particular implications of the assumption that propositions (in the sense of mental pictures of states of affairs) have no 'independent' existence but are always, somehow or other, 'penetrated' by the speaker's attitude with reference to the state of affairs reflected and thus made into 'judgements'. What we have in mind here is the fact that "das Urteil immer im menschlichen Bewußtsein existiert und daß es damit stets auch zu anderen Bewußtseinsinhalten in Beziehung gesetzt wird" (Philosophisches Wörterbuch 1971:1109).

It goes beyond the scope of the present paper to do full justice to the obvious intricacy of the structural design of linguistic utterances on the level of content. The following exposition can, therefore, not be claimed to be more than an 'enumeration' of elements to be taken into account in fuller elaborations of the model of description (which will be the subject of another paper now in preparation). Although some suggestions in this direction could be made, we shall refrain here from any attempts to give a formalized representation.

5

In further completing our picture of the underlying semantic relational structure of utterances, we here suggest the addition of the 'Reference Frame' as another main component.

We consider the function of this component to be that of serving the speaker for reference in his formation of judgments concerning the states of affairs reflected in his mind, or, in other words, providing the basis of judgment. What is to be covered within the Frame of Reference are, in our opinion, properties of either mental images or states of affairs (in their capacity as objects of mental reflection) to which the individual may refer in his judgement, but which have existence independently of him. This latter fact will have to be borne in mind in order to prevent confusion with other features of judgements which are clearly dependent on the subject.

Properties of the sort in question, which belong, at least in part, to the category of 'relative' (as opposed to 'absolute') properties, may be said to include such as the following:

(1) (degree of) agreement (or non-agreement) of the mental picture or the matter of fact to be reflected in the mind, respectively, with certain 'values', 'standards' or 'norms', such as

— the adequacy of the reflection itself, the (degree of) accordance of the image with the actual state of affairs, the evidence, with fact or reality (i.e. the truth-value of the proposition),

— the 'naturalness', 'reasonableness', 'soundness', 'correctness', 'lawfulness' etc. of the matter of fact under consideration,

— the conformity (or non-conformity) of a particular course of action or other state of affairs with certain norms of behaviour, ethical or moral principles as valid in a certain society or for particular social classes or groups, with the desires of society, political principles, ideologies,

and many other properties or relations of the same category, verbally representable in a very general form as

$$\Delta \text{ be (Deg) in } \left\{\begin{matrix}\text{accordance}\\ \text{agreement}\\ \text{conformity}\end{matrix}\right\} \text{ with } \qquad Y$$

(2) objective potentiality, probability, unavoidability or inevitability (such as the quality of following immediately from physical, social, moral or logical laws, for example) of the coming into being or activity of something, roughly verbalizable, perhaps as

$$\text{it be (Deg) } \left\{\begin{matrix}\text{possible}\\ \text{probale}\\ \text{inevitable}\end{matrix}\right\} \text{ that:}$$

$$\Delta \left\{\begin{matrix}\left.\begin{matrix}\text{come to be}\\ \text{become}\end{matrix}\right\} \left\{\begin{matrix}\text{reality}\\ \text{an actual fact}\end{matrix}\right\}\\ \text{come into actual existence}\end{matrix}\right\} \text{ at some future time (or generally)}$$

(3) (degree of) necessity or requisiteness of a certain act, process or event for something else:

$$\Delta \text{ be } \left\{\begin{matrix}\text{(something that is) necessary (to a specific end)}\\ \left.\begin{matrix}\text{required as a condition for}\\ \text{a prerequisite of}\\ \text{vital / essential / requisite to / for}\end{matrix}\right\} \qquad Y\end{matrix}\right.$$

(4) (degree of) significance, utility, etc. for something else, verbally representable as:

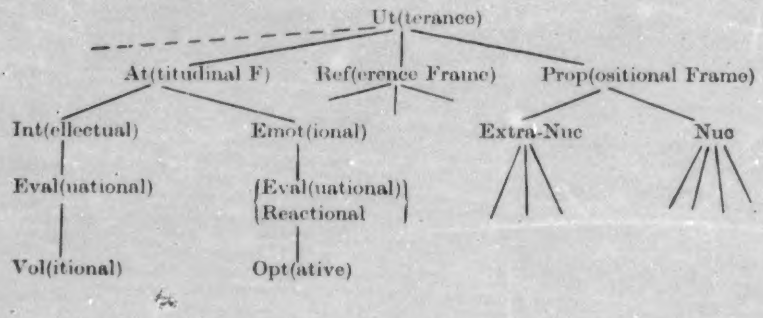
$$\Delta \text{ be } \left\{\begin{array}{l} \text{of } \left(\left[\begin{array}{l}\text{much}\\ \text{great}\\ \text{little}\\ \text{no}\\ \text{little}\end{array}\right]\right) \left[\begin{array}{l}\text{importance}\\ \text{significance}\\ \text{value}\\ \text{consequence}\\ \text{use}\end{array}\right] \\ \left(\left[\begin{array}{l}\text{very}\\ \\ \text{highly}\end{array}\right]\right) \left[\begin{array}{l}\text{useful}\\ \text{advantageous}\\ \text{profitable}\end{array}\right] \\ \qquad\quad \vdots \qquad\qquad\quad \vdots \end{array}\right\} \text{ to/for } \qquad Y$$

There is no doubt that the 'list' of potential 'objects of judgement' will have to be further extended and that fuller representations will also have to take account of 'value — relations' not referring to the 'proposition' as a whole but to certain of its components, i.e. relating, amongst other things, to the personality or character of people, motives and goals of actions, properties of objects, aesthetic qualities, and many others.

6

What will scarcely raise any objections is the necessity of complementing the underlying semantic relational structure of linguistic utterances by a component serving the 'projection' of those elements which particularly concern the relations of the speaker to the reflected state of affairs itself or his attitude with reference to specific properties of it, i.e. properties of the sort mentioned in the preceding paragraph. For lack of a better term we will, provisionally, call this component (the component expressive of the) 'Speaker Attitude'; if not the 'Attitudinal Frame'.

For convenience of the description, it seems justifiable to split up this component into two sub-components, according to the specific character of the attitude to be assumed, and to further differentiate the elements to be covered in them. Graphically, this might be represented in the following way:



Attention has to be drawn to the fact, however, that the two subcomponents of the 'Attitudinal Frame' are, at least as far as we can see, not to be conceived of as 'co-occurring components' (with the exception of some specific cases), but to be made use of optionally in the formation of a particular individual utterance.

The first sub-component (represented as Int) may be said to be reserved for the expression of a state of mind or mental attitude arrived at as a result of reasoning or reflection, for the speaker's way of thinking about or viewing certain things intellectually, whereas the second might be set aside for the 'input' of elements more closely connected with the state of feeling, the speaker's emotional attitude towards certain facts or imagined states of affairs, his way of viewing certain things (more) emotionally.

Although we cannot go into details here, it must at least be mentioned that the elements of the speaker's attitude to be specified within the 'Attitudinal Frame' do not at all necessarily require explicit formulation in the 'actualization' of the particular individual utterance. Instead of explicitly stating his attitude, the speaker may, in many cases, decide upon other ways of indicating his evaluation of or emotional involvement in a particular matter. Besides intonation as a highly flexible means of expressing subtler shades of attitudes, there is the lexicon itself which offers him opportunities for pointing to his attitude simply by his choice of one of several possible lexical items basically identical in reference but differing in 'connotation' or 'tinge', 'neutral' or 'non-neutral'.

The particular elements to be covered in the 'intellectual attitude' component have been named 'Evaluational' and 'Volitional'. The first of them, the one (perhaps the only one) which seems to us to require at least 'minimum specification' in the formulation of all utterances whatsoever, may be said to serve 'evaluation proper' or 'judgement' in the narrower sense of the word, that is expression of the mental attitude of the speaker assumed with reference to the actuality, potentiality, probability, certainty, or unavoidability of the state of affairs reflected in the mind or its conformity with certain standards, norms, principles or regulations, or its significance, necessity, usefulness for something else, etc.

In any case the 'evaluational' sub-component includes elements referring to either unqualified (tacit) approval or denial, or to varying degrees ranging from 'absolute' certainty to almost complete uncertainty about the object of judgment, or to emphatic assertion or denial. It does, of course, also include other elements which cannot be gone into at this point.

A somewhat different mental attitude, called Volitional and assumed as a result of deliberation or examination, may be said to relate to a future state of affairs in the sense of an 'envisaged goal', a situation to be reached by — more or less — planned measures or concerted action. It is existent in the speaker in the form of a plan, will, intention, purpose, or design and finds expression in linguistic utterances such as

(32) John had no intention of going from Edinburgh to London by car — John had no intention of driving from Edinburgh to London.

(33) We are determined to reach a political solution of the Indochina problem.

The elements to be covered in the 'emotional — attitude component' obviously include emotional reaction or response to or evaluation of something seen, heard, or otherwise experienced, on the one hand, and, on the other, inclination towards the reaching of a certain goal arising from one's own inner condition, disposition, feeling or need, that is desire, want, wish, longing, craving, need or urge, for instance, subsumed as 'Optative' in the graphic representation. Concrete individual utterances containing elements of this kind are, for example,

(34) I should very much like to drive down from Edinburgh to London.

(35) I am indignant at (view with dismay) the fact that US. helicopters have flown more Saigon regime troops from South Vietnam to Cambodia.

7

Time and space permit only a few remarks on the possibilities of a still more complete description of the underlying relational structure of linguistic utterances at the content level by the addition of another component, provisionally called the 'Situational Frame'. This component will enable us to take into consideration the relevant features which concern the particular communication situation with the inclusion of facts regarding the attitude of the speaker to his interlocutor.

Apart from the main constituents, verbally to be represented as

$$\text{X (the speaker, I)} \begin{Bmatrix} \text{inform-} \\ \text{tell} \end{Bmatrix} \text{Y (the one to whom the speaker adresses himself):}$$

and the Location in Time of the utterance (which in 'direct statements' always has to be considered as NOW), it permits account to be taken of further features influencing the way of formulating the utterance and determining, in part, also the attitude of the speaker with regard to the particular state of affairs reflected in his mind.

Among the features relevant — especially in relation to the 'socially determined aspects of speech' — which could perhaps be represented in the form of indices to the relational constituents of this component, such elements may be mentioned as the speaker's social standing, his membership of a social class or social group, his educational level, the character of the relationship between the speaker and the person(s) to whom the speaker addresses himself, with the inclusion of differences in status between them, etc.

What is equally possible is to take account of the emotional reactions to the behaviour of his partner(s) resulting immediately from the particular situation and indicated, frequently, in 'emotional overtones' by means of intonational variation.

C

The topic of the present paper necessarily demanded concentration on questions of the semantic organization of linguistic utterances at the uppermost level of abstraction to be taken account of in the suggested model of description, the level of semantic relations. Restriction to this seemed to us the more justifiable as what is to be covered at this level may hopefully be regarded as invariant from language to language and, therefore, is suited not only as the initial level of the description of particular individual languages, but equally well as the base from which profitably to set in Contrastive Structure Studies. For it will scarcely be subject to doubt that "discovering how language-invariant concepts and propositions... are ultimately realized or expressed in language specific forms or structures in the two languages under comparison" (Berndt 1971: 29) must be considered one of the main objectives of contrastive linguistics.

'Language-specificness' does, in our opinion, begin to come in in what we have distinguished as the Lexicon or lexical subcomponent within the semantic level, more precisely, in the formation of individual utterances to be fitted into specific 'utterance-frames' (or 'semantic relational' structures) It is these processes concerning the generation of concrete individual utterances of particular types from the underlying relational structures established at the level of semantic relations which are certainly of especial concern to contrastive studies.

To go into the language-specific principles regulating these very processes would, however, go far beyond the scope of this paper, if not beyond the state of knowledge at the present stage of research. What might justifiably be expected in conclusion, would, perhaps, be to present at least some ideas concerning the functions of the other levels or sub-levels of grammatical description as conceived of in the present model.

The most important function of the LEXICON, apart from supplying the list of the elementary meaning-bearing units of the particular language in question (not restricted, however, to elements serving the expression of so-called lexical or semantic meaning as opposed to 'grammatical meaning'!), obviously is to provide the 'principles' (or lexicon rules) regulating the selection and insertion of the appropriate individual lexical items into the particular positions within the 'utterance-frame', on the one hand, and, on the other, specifying the various posibilities of lexical condensations (as "move through air by means of..." ⇒ "fly", for example) given in the language under consideration.

The rule mechanism of the SYNTACTIC LEVEL, no doubt, will have to consist of sets of principles (syntactic rules) regulating the syntactic patterning or fitting into syntactic patterns of the constructs derived on the semantic level. Amongst these there will have to be rules which establish the relations of the units of meaning or semantic relational constituents (such as Agentive, Patient, Instrumental, etc.) to the syntactical functioning units — or, in other words, rules which make the constituents of semantic relational structures into units of particular syntactic constructions (and, as such, holder of syntactic 'roles') — or specify the ways in which the semantic units are to be given syntactic function and 'formally' marked as means of expressing 'grammatical' relations, such as 'subject-of a sentence', 'predicate-of a sentence', 'direct object', 'indirect object', etc.

Other rules of the sort to be found on the syntactic level will either have to be principles regulating the arrangement or order of the constituents of the particular syntactic relational structures as means of expressing syntactic relationships, or deletion rules specifying potential erasures of elements and relations, principles governing the conjoining of the various components of the linguistic utterance (as distinguished in this paper) into a connected whole, rules concerning reductions of syntactic structures to more compact forms or, in other words, syntactical condensations, as well as principles regulating the joining together of two or more simple utterances, or parts of them, into a complex utterance, etc.

Finally, it is obvious that the rules or principles occurring on the PHONOLOGICAL LEVEL will have to regulate the sound structure and intonational patterning of the linguistic utterances.

There is, no doubt, much further ground to be covered and the support of many linguists is needed in order to solve a host of open questions concerning the 'miracle of language', from the point of view of linguistics proper as well as that of applied linguistics.

REFERENCES

Ammeer K. 1958. *Einführung in die Sprachwissenschaft*. Halle/Saale: VEB Max Niemeyer Verlag.

Bellert, I. 1969. "Arguments and predicates in the logico-semantic structure of utterances". *Studies in syntax and semantics*. Ed. by F. Kiefer. Dordrecht: D. Reidel and Co.

Berndt, R. 1971. "Recent approaches to grammar and their significance for contrastive structure studies". *The Yugoslav Serbo-Croatian – English contrastive project. B. Studies* 3. Ed. by R. Filipović. Zagreb: Kuóna tiskara Sveučilišta.

Bolinger, D. 1968. *Aspects of language*. New York: Harcourt, Brace and World Co.

Chomsky, N. 1965. "Persistent topics in linguistics". *Diogenes 51*. An international review of philosophy and humanistic studies. Montreal: Mario Casalini Ltd.

Chomsky, N. 1966. "The current scene in linguistics". *College English XXVII*. 38. Chicago.

Chomsky, N. 1968. *Language and mind*. New York: Harcourt, Brace and World Co.

Curme, G. O. 1930. *A grammar of the English language*. Vol. III. Syntax. Boston-New York–Chicago: D.C. Heath and Company.

Fries, Ch. C. 1952. repr. 1957. *The structure of English sentences*. London: Longmans.

Hill, A. A. (ed.) 1969. *Linguistics today*. New York and London: Basic Books, Inc.

Hungerford, H., Robinson, J., Sledd, J. (eds.) 1970. *English linguistics*. Glenview: Scott, Foresman and Co.

Klaus, G. 1965. *Spezielle Erkenntnistheorie*. Berlin: VEB Deutscher Verlag der Wissenschaften.

Klaus, G. 1969. *Die Macht des Wortes*. Berlin: VEB Deutscher Verlag der Wissenschaften.

Klaus, G., Buhr, M. (eds.) 1971. *Philosophisches Wörterbuch*. Band 2. Leipzig: VEB Bibliographisches Institut.

Lado, R., Fries, Ch. C. 1965. *English sentence patterns. Understanding and producing English grammatical structures*. Ann Arbor: University of Michigan Press.

Leont'ev, A. A. 1970. *Obščee jazykoznanie*. Ed. by B. A. Serebrennikov. Moskva: Nauka.

Lester, M. (ed.) 1970. *Readings in applied transformational grammar*. New York: Holt, Rinehart and Winston.

Newmark, L. 1966. "How not to interfere with language learning". *International journal of American linguistics*. Vol. 32. No 1. Part II. 77 - 83. Repr. in M. Lester (ed.) 1970.

Newmark, L., Reibel, D. A. 1968. "Necessity and sufficiency in language learning". *IRAL* 6. 145 - 164. Repr. in M. Lester (ed.) 1970.

Ridjanović, M. 1972. "A reinterpretation of verbal aspect in Serbo-Croatian". *The Yugoslav Serbo-Croatian — English contrastive project. B. Studies* 5. Ed. by R. Filipović. Zagreb: Kućna tiskara Sveučilišta.

Ritchie, W. C. 1967. "Some implications of generative grammar for the construction of courses in English as a foreign language". *Language learning*. Vol. XVII. 45 - 69, 111 - 131. Ann Arbor: Research Club in Language Learning.

Rosenthal, M., Yudin, P. (eds.) 1967. *Dictionary of philosophy*. Moscow: Progress Publishers.

Sapir, E. 1933. "Language". *Encyclopaedia of the social sciences*. Vol. IX. 155 - 169. Ed. by E. R. A. Seligman, repr. in Hungerford, H., Robinson, J., Sledd, J. (eds.) 1970.

Serebrennikov, B. A. (ed.) 1970. *Obščee jazykoznanie. Formy suščestvovanija, funkcii, istorija jazyka*. Moskva: Nauka.

Smith, H. L. 1969. "Language and the total system of communication". Ed. A. A. Hill. *Linguistics today*. New York and London: Basic Books, Inc.

Thomas, O. (ed.) 1967. *The structure of language*. Indianapolis: The Bobbs-Merrill Company, Inc.

Wissemann, H. 1961. "Die Rolle des Grammatischen beim Verstehen des Satzsinnes". *Indogermanische Forschungen, Zeitschrift für Indogermanistik und Allgemeine Sprachwissenschaft*. Band 66. 1 - 9. Berlin: Walter de Gruyter.

Wygotski, L. S. 1964. *Denken und Sprechen*. Berlin: Akademie-Verlag.

ZISW: Bierwisch, M., Heidolph, K. H., Motsch, W., Neumann, W., Suchsland, P. 1972. *Grammatiktheorie, Sprachtheorie und Weltanschauung. Bemerkungen über das Verhältnis der marxistischleninistischen Sprachtheorie zur generativen Transformationsgrammatik* (mimeographed). Berlin: Deutsche Akademie der Wissenschaften.

PHONOLOGY

THE DISTRIBUTIONAL CHARACTERISTICS OF ENGLISH AND POLISH VOWELS

STANISŁAW PUPPEL

Adam Mickiewicz University, Poznań

SOME GENERAL REMARKS

The present paper is intended to characterize the vocalic systems of English and Polish from the point of view of the placement of particular vowels either in stressed or unstressed syllables. Thus, the approach adopted in the paper is syllabic. It is also assumed that the syllable is a phonological unit in the sense that it serves as "the most convenient framework for describing the distribution of phonemes" (Haugen 1956 : 216). Moreover, for purposes of the present paper among syllables only those containing simple peaks, i.e., those syllables with simple vowels functioning as nuclei, will be discussed.

As far as stress is concerned we assume that both in English and Polish stress is of the emphatic or dynamic (expiratory) type, i.e., in a given polysyllabic word a stressed syllable is distinguished from unstressed syllables either preceding the stressed one or following it by putting a greater emphasis on its peak (Wierzchowska 1971 : 216-7; Doroszewski 1963). However, some authors also postulate the existence of the tonic or melodic stress, i.e., when the stressed syllable is distinguished from the unstressed one by difference in tone (Jassem : 1962c). Since the existence of tone is impossible without emphasis therefore it seems appropriate to treat the stress as being of the mixed emphatic-tonic nature both for English and Polish.

As far as the inventory of the English vowel phonemes is concerned our analysis will comprise the system of Present-Day Standard British English vowels as defined by Daniel Jones. It should also be pointed out that no reference will be made to other existing varieties of English.

Thus, we assume that the vocalic system of Standard British English contains the following phonemes: /iː, i, e, æ, ʌ, aː, ɔ, ɔː, u, uː, əː, ə/.

The vocalic system of Polish, in turn, comprises of the following phonemes: /i, ɨ, e, a, o, u/[1].

Moreover, for the purposes of our paper we find it useful to distinguish the following main types of syllables:

1. stressed or tonic syllables /TS/,
2. unstressed syllables /UnS/,

The latter may be further subdivided into:

2.1. pre-tonic syllables /PRS/,
2.2. post-tonic syllables /PTS/,

Within the pre-tonic type of syllables we may distinguish:

2.1.a. remote preceding syllable /RPS/, i.e., the syllable that is followed by another unstressed syllable preceding the tonic syllable, e.g., *kɔdifi'keiʃən, kowo'vrotek*;

2.1.b. adjacent preceding syllable /APS/, i.e., the syllable that is immediately adjacent to the tonic syllable, e.g. *fə'giv, ka'valer*.

Similarly with the pre-tonic syllables the post-tonic syllables may be further subdivided into:

2.2.a. adjacent following syllable /AFS/, i.e., the syllable that immediately follows the tonic syllable, e.g. *iks'pænʃən, 'krova*;

2.2.b. remote following syllable /RFS/, i.e., the syllable that is either final in the set of post-tonic syllables or is preceded by another unstressed syllable, e.g. *eks'plɔːrətiv, re'torika*.

1. The distributional characteristics of English and Polish vowels functioning as peaks of the tonic syllables /TS/.

English:	Polish:
/iː/	/i/
eat 'iːt	*ikra* 'ikra
beat 'biːt	*lina* 'lina

---

[1] Cf. Krzeszowski, T. P. 1970; see also Doroszewski, W. 1963, and Klemensiewicz, Z. 1962, p. 19. It should be pointed out that the so-called nasal vowels (ę) and (ǫ) as distinguished, among others, by Doroszewski and Klemensiewicz are interpreted by Jassem and Krzeszowski as combinations of a vowel plus a subsequent nasal consonant. This point of view is adopted here.

/i/
idiom 'idiəm
lithic 'liθik

/e/
enter 'entə
ten 'ten

/æ/
act 'ækt
cat 'kæt

/ʌ/
ullage 'ʌlidʒ
brush 'brʌʃ

/a:/
artist 'a:tist
bard 'ba:d

/ɔ/
obligant 'ɔbligənt
top 'tɔp

/ɔ:/
order 'ɔ:də
horn 'hɔ:n

/u/
put 'put
foot 'fut

/u:/
shoot 'ʃu:t
shoe 'ʃu:

/ə:/
urn 'ə:n
turn 'tə:n

/i/
łysy 'wisi
żyła 'ʒiwa

/e/
efekt 'efekt
lewa 'leva

/a/
apel 'apel
kara 'kara

/o/
oko 'oko
łoś 'woɕ

/u/
ukłon 'ukwon
sól 'sul

Below is a diagram representing the occurrence of English and Polish vowels in tonic syllables:

English Vowels	in TS	Polish Vowels	in TS
i:	+	i	+
i	+	i	+
e	+	e	+
æ	+	a	+
ʌ	+	o	+
a:	+	u	+
ɔ	+		–
ɔ:	+		
u	+		
u:	+		
ə:	+		
ə	–		

Fig. 1

As follows from the above diagram /ə/ does not function as a peak of the tonic syllables in English.

2. The distributional characteristics of English and Polish vowels functioning as peaks of pre-tonic syllables /RPS and APS/.

English:	Polish:
/iː/	/i/
demonetization diː ˌmʌnitai'zeiʃən	***mitologia*** mito'logja
resection ri(ː)'sekʃən	***liczydło*** li't͡ʃidwo
/i/	/i/
elicitation iˌlisi'teiʃən	***psychologia*** psixo'logja
histology his'tɔlədʒi	***tymczasem*** tim't͡ʃasem
/e/	/e/
epexegetic eˌpeksi'dʒetik	***Telimena*** teli'mena
heptagonal hep'tægənl	***tematy*** te'mati
/æ/	/a/
acataleptic æˌkætə'leptik/æ/|/ə/	***arytmetyka*** arit'metika
ancillary æn'siləri	***maskotka*** mas'kotka
/ʌ/	/o/
unalterability ʌnˌɔːltərə'biliti	***ogorzały*** ogo'ʒawi
Cullinan kʌ'linən	***kobyła*** ko'biwa
/aː/	/u/
articulation aːˌtikju'leiʃən	***sumaryczny*** suma'rit͡ʃni
carbonic kaː'bɔnik	***kultura*** kul'tura
/ɔː/	
authentication ɔːˌθenti'keiʃən	
torment /v./ tɔː'ment	
/ɔ/	
volatization vɔˌlætilai'zeiʃən /ɔ/|/ə/	
solidity sɔ'liditi	
/u/	
refutability ˌrefjutə'biliti	
moustache mus'taːʃ /u/|/ə/	
/uː/	
municipality mju(ː)ˌnisi'pæliti	
lucidity luː'siditi	
/əː/	
personification pəːˌsɔnifi'keiʃən /əː/|/ə/	
turbidity təː'biditi	
/ə/	
abomination əˌbɔmi'neiʃən	
convince kən'vins	

As can be noticed some English vowels in the above unstressed positions are subject to qualitative as well as quantitative changes, viz. /i:/|/i/ (| is to be read as "alternates with"); /æ/|/ə/; /ɔ/|/ə/; /u/|/ə/, and /ɔ:/|/ə/.

These changes are due to the fact that in the unstressed syllables vowels tend to lose their original length, i.e., the length attributed to them in the tonic syllables, and are even reduced either to the central neutral vowel /ə/ or to the front short /i/. As far as the Polish vowels are concerned they are not, contrary to English vowels, subject to qualitative changes, although they undergo certain quantitative changes, i.e., their sonority is not as big as is the case in the tonic syllables, their tone is lower as compared with the tone of stressed peaks, and they tend to be shorter.

3. The distributional characteristics of English and Polish vowels functioning as peaks of the post-tonic syllables /AFS and RFS/.

English:		Polish:	
/i:/		/i/	
Banfield	'bænfi:ld	*katolik*	ka'tolik
acetylene	ə'setili:n	*krytyki*[2]	'kritɨki
/i/		/ɨ/	
baldric	'bɔ:ldrik	*akustyka*	a'kustɨka
balcony	'bælkəni	*akustycy*	a'kustɨt͡si
/e/		/e/	
godsend	'gɔdsend	*ratlerek*	ra'tlerek
abdomen	'æbdəmen	*medykiem*	'medicem
/æ/		/a/	
bareback	'bɛəbæk	*droga*	'droga
ballyrag	'bælíræg	*mechanika*	me'xaɲika
/ʌ/		/o/	
bankrupt	'bæŋkrʌpt /ʌ/|/ə/	*wesolo*	ve'sowo
Gorboduc	'gɔ:bədʌk	*plastyko*	'plastɨko
/a:/		/u/	
grandma	'grænma:	*dachu*	'daχu
addressograph	ə'dresəugra:f /a:/|/æ/		
/ɔ:/			
gemshorn	'gemzhɔ:n		
Baltimore	'bɔ:ltimɔ:		

---

[2] It should be mentioned here that as a rule the stress in Polish words falls on the penult. But there are exceptions to this rule, viz. in some loan words, particularly of Greek origin, the stress falls on the third syllable from the end of the word. The words have the following endings: -ika, -yka, -ik, -yk. For some further details see Wieczorkiewicz, B. 1971, pp. 56 - 7.

English:

/ɔ/	
bandbox	'bændbɔks
homologue	'hɔmələg
/u/	
glandular	'glændjulə
Hilversum	'hilvəsum /u/|/ə/
/u:/	
globule	'glɔbju:l
absolute	'æbsəlu:t
/ə:/	
adverb	'ædvə:b
gallows-bird	'gæləuzbə:d
/ə/	
banner	'bænə
barbican	'ba:bikən

Also in the post-tonic syllables some English vowels alternate with shorter vowels. Thus, /ʌ/|/ə/, /ɑ:/|/æ/, and /u/|/ə/.

4. Some concluding remarks.

The above short presentation of English and Polish vowels has enabled us to arrive at the following conclusions:

a) all English vowels may function as peaks of both pretonic and post-tonic syllables;

b) all long vowels of English exhibit the tendency to alternate either with /ə/ or /i/ when occurring in the unstressed syllables;

c) the change of the quality of a given long vowel in the unstressed syllable is a characteristic feature distinguishing the unstressed syllables from the unstressed syllables, apart from greater emphasis the peaks of the latter receive;

d) the occurrence of English vowels whose quality remains unchanged in the unstressed syllables is restricted to a limited number of words most of which are borrowings. However, there is now a tendency in English to reduce their length and to replace them by the central neutral vowel /ə/;

e) the occurrence of /ə/ is limited to unstressed syllables exclusively[3];

f) no Polish vowels change their quality in unstressed syllables;

g) on the other hand, all Polish vowels tend to undergo certain quantitative changes in the unstressed position (cf. section 2).

---

[3] The occurrence of (ə) in the so-called centring diphthong (iə) is not taken into consideration here.

REFERENCES

Doroszewski, W. 1963. *Podstawy gramatyki polskiej*. 2nd ed. Part I. Warszawa: PWN.

Haugen, E. 1956. "The syllable in linguistic description". In *For Roman Jakobson*. The Hague: Mouton.

Jassem, W. I. 1962a. "The distinctive features of Polish phonemes". *Speech transmission laboratory, quarterly progress and status — Report*. Stockholm: Royal Institute of Technology.

— 1962b. *Podręcznik wymowy angielskiej*. Warszawa: PWN.

— 1962c. *Akcent języka polskiego*. Wrocław — Warszawa — Kraków: PAU.

Jones, D. 1967. *English pronouncing dictionary*. 13th ed. London: J. M. Dent and Sons Ltd., New York: E. P. Dutton and Co.

Klemensiewicz, Z. 1962. *Podstawowe wiadomości z gramatyki języka polskiego*. 7th ed. Warszawa: PWN.

Krzeszowski, T. P. 1970. *Teaching English to Polish learners*. Warszawa: PWN.

Wieczorkiewicz, B. 1971. *Sztuka mówienia*. Warszawa: COK.

Wierzchowska, B. 1971. *Wymowa polska*. 2nd ed. Warszawa: PZWS.

THE DISTRIBUTIONAL CHARACTERISTICS OF ENGLISH AND POLISH DIPHTHONGS

ROMAN KALISZ

Polish Academy of Sciences, Poznań

I. INTRODUCTION

1.1. The approach to diphthongs in the present paper will be phonemic. A diphthong is defined as "a sequence of a vowel and a semi-vowel". The possibilities of treating and transcribing a diphthong as one unit are left here without discussion. Diphthongs are divided into categories of falling and rising according to the order of the two glides. A diphthong is falling when the first element is more prominent (syllabic). A diphthong is rising when the order of the glides is reversed (the second glide is syllabic). The third type of diphthongs is called the centring diphthong which begins with a vowel and ends with /ə/ (a neutral half-open position). The schwa is non-syllabic.

1.2. Sequences: Semivowel+V+Semivowel, V+Semivowel+/ə/ or V+Semivowel+V are not discussed in the present paper because most of them are treated as triphthongs, and, in part because the difficulties connected with establishing boundaries which either separate a preceding vowel from a rising diphthong or a vowel which follows a falling diphthong, e.g. /aja/ in Polish /maja/ can be divided as /maj-a/ or /ma-ja/. None of the possibilities seems to be more acceptable because /maj/ exists separately. The fact advocates the existence here of a falling diphthong. Nevertheless, the division into syllables /ma-ja/ is preferable.

1.3. Distribution covers the occurrence of diphthongs in three positions: initial, medial and final.

II. THE DISTRIBUTION OF ENGLISH DIPHTHONGS

2.1. The analysis is based mainly on Standard British English. Sometimes references to American English will be made. All three types of diphthongs appear in English. There are two semivowels in English /j/ and /w/. Let us examine the possible combinations of the semivowels, and of the schwa with vowels.

2.2. Rising diphthongs /j+V/ and /w+V/.

a) j+V

Table 1

Position	Initial	Medial	Final
/je/	/jel/yell, yet, yellow yelp, yesterday	——————[1]	——————[1]
/jɛ/	/jɛpi/yappy, yak, yealmpton, Yarico, yashmack	——————	——————
/ja/	/ja/young, yum, youngster, Youge yucca	——————	——————
/jɑ/	/jɑd/yard, yah yarn, yardley, Yarmouth	churchyard[2] milliard	——————
/jɔ/	/jɔd/yod, yonder, Yorrick you're(in rapid speech)	/bi'jɔnd/[3] beyond	——————
/jo/	/jon/yawn, yore, yours, York, Yorker	——————[4]	——————[4]
/ju/	/jus/use, Utah, utility,[5] uvula, utensil	/'stimjulejt/ stimulate, cute, duty, accuracy, valueless, postulate	/'nevju/[6] nephew, bedew
/jɜ/	/jɜn/yearn, year, yearling, Yerkes	——————	half year /hɛfjɜ/[7]
/jə/	/jə'selvz/yourselves[8] /jə'v/you have	/ejpjən/ apian, bilabial, alluvial, sentient, opinion, canadium, serbonian, etc.	/windjə/windier, rimpia, India, Cynthia, schizophrenia, etc.

---

[1] In medial and final position /je/ is reduced to /jə/. The diphthongs may be in complementary distribution since /jə/ in the initial position is found only occasionally.

[2] Found only occasionally.

[3] Found only occasionally. The pronunciation /bi'ɔnd/ is also frequent.

[4] Found in foreign words /fjod/ fiord or in /kjoriəs/ curious, /kjo/ cure. However, the pronunciations /kjuəriəs/ and /kjuə/ are more frequent.

[5] The pronunciation /juwvula/ or /juwə/ is more frequent in British English. /ju/ in the initial position is found in foreign words /'jusəf/ Yussuf.

[6] Found only occasionally.

[7] The appearance is occasional.

[8] Found only occasionally.

b) w+V

Table 2

Position	Initial	Medial	Final
/wi/	/wil/ will, wilful, widow, which, whig, women, etc.	/dwindl/ dwindle, quit, twin,	———
/we/	/wel/ well, whelp, wedding, welcome, welfare, Weller, etc.	/dwel/ dwell, question, twelve, quest	———
/wɛ/	/wɛg/ wag, wagon, wagfall, waggery, Wagnell, W.A.T., etc.	/twɛŋ/ twang, twangle, gang,	———
/wa/	/wan/ one, won, wonderful, wondrous,	———	———
/wɔ/	/'wɔdi/ waddy, wafle, was, Wal, Waller, wan, wand, etc.	/'twɔdl/ twaddle, quadroon, squat, quarrel, quadruple,	———[1]
/wo/	/wol/ wall, walnut, walrus, walk, warlike, warm, water, etc.	/'dwof/ dwarf, squash, quarter	———[1]
/wu/	/wud/ wood, wool, wolf, woman, Wodard, Wolsey,	/in'wud/ inwood, Elmwood, boyhood, Curwood, childhood	———
/wɜ/	/wɜk/ work, worse, worship, world, weren't,	password, deepword, Edward	———
/wə/	———[2]	/'fowəd/ forward, toward, inward, backward,	/a'jəwə/Iowa[3]

---

[1] Found occasionally in foreign words: /patwo/ patois, /skwo/ squaw.

[2] Found occasionally in foreign words: /wə'habi/ Wahabi.

[3] Found occasionally.

2.3. English falling diphthongs.

a) V+j

Table 3

Position	Initial	Medial	Final
/ij/	/ijt/ eat, eel, eastward, Easter, e'n, etc.	/fijld/ field, mean, keen, fourteen, etc.	bee, pea, tree /trij/ be, see, sea, key, etc,
/ej/	/ejk/ ache, A.B.C., ape, eight, ancient, amen corner, etc.	/fejs/ face, late, make, date, state, veil, etc.	/dej/ day, May, say, O.K., play, etc.
/aj/	/aj'diəl/ ideal, idol, identity, ice, icon, etc.	/rajd/ ride, bribe, side, mice, died, nice, etc.	/taj/ tie, sigh, die, lie, my, high, etc.
/ɔj/	/ɔjl/ oil, oink, oyster, Oystrakh, Oisin	/bɔjl/ boil, soil, exploit, Lloyd	boy, coy, toy, joy

All above diphthongs can occur in all positions.

b) V+w

Table 4

Position	Initial	Medial	Final
/aw/	/awns/ ounce, out outrageous, outline outsider	/ə'bawt/ about, loud, down, mouse, found, house	/baw/ bow, how, cow, crow, thou
/uw/	———	/smuwθ/ smooth, food, move, root, tooth, droop	/duw/ do, true, who, clue, through
/ɜw/American /ow/	/ɜwk/ oak, own, over, only	/hɜwp/ hope, boat home, both, noble	/gɜw/ go, flow, toe, follow, dough

/uw/ in the initial position is occasionally found in foreign words /'uwlənd/ Ungland, /uwgriən/ Ugrian.

The appearance of English falling diphthongs is restricted according to their consonantal environment. The so-called "distribution B" is examined by Trnka and some others.

2.4. Centring diphthongs /–/V+ /.

Table 5

Position	Initial	Medial	Final
/iə/	/iən/ Ian, ear, earphones	/im'piəriəl/ imperial, period, pierce, fierce, weird, beard	/biə/ beer, fear, dear, queer, hear, here, windier, etc.
/εə/	/ε'əmejl/ air mail, aeroplane	/prεəri/ prairie, prayer, book, scarce, wearing	prayer, bear /bεə/, fair, fare, dare, square, etc.
/uə/	———	/puəli/ poorly, surely, curious, cured,	/puə/ poor, sure, mature, aperture, moor, sewer, etc.

There is also a centring diphthong /ɔə/, e.g. /sɔəd/ sword in medial position, /flɔə/floor, /mɔə/more in final. However, the pronunciation /sod/, /mo/, /flo/ is more frequent.

III. THE DISTRIBUTION OF POLISH DIPHTHONGS

3.1. The status of Polish diphthongs, both rising and falling, is not so clear as in the case of English diphthongs. A lot of phoneticians do not mention diphthongs at all. Koneczna (1965 : 126) discusses diphthongs, diphthongoids and thriphthongs, pointing out the fact: "Klasycznych albo właściwych dyftongów opadających związanych z bardzo silnym przyciskiem wyrazowym charakteryzujących na przykład język starofrancuski albo też liczną grupę języków germańskich w języku polskim nie ma... Polskie dyftongi powstawały raczej jakby ubocznie w wyniku różnych tendencyj artykulacyjnych". Dłuska /1950/ treats sequences of vowels with i̯ as diphthongs; however combinations of vowels with u̯ are not interpreted as diphthongs because u̯ can stand alone in such words as *u̯ba* or *mugu̯*. The so-called nasal vowels are described by Dłuska and Koneczna as diphthongs (in the case of Koneczna as diphthongoids). The following diphthongs with nasal glides can be distinguished: *ęu̯, ǫu̯, ąu̯, yj, ęj, ąj, ǫj, ij*.

3.2. According to the definition of the diphthong accepted in the present paper all combinations of vowels with /j/ and /w/ are treated as diphthongs because /j/ and /w/ in Polish are definitely semivowels. Diphthongs with /w/ glides are optional since consonantal pronunciation /ł/ of /w/ is preserved by many speakers.

3.3. Polish rising diphthongs.

a) j+V

Table 6

Position	Initial	Medial	Final
/je/	/jego/ jego, jeż, jeniec, jemioła, jesień, jesion, etc.	/djecezja/ diecezja, dieta, hacjenda, traktiernia	/depozycje/ delicje, racje, nacje, dalie
/ja/	/jar/ jar, jarosz, jarzmo, Jarocin, jagnię	diament, facjata, diabeł, diadem, diagnoza	akacja, gracja, emisja, dyskusja, · drogeria, dyrekcja
/jo/	jodła, jota, jod /jod/, Jozafat	/vujovi/ wujowi, fantazjować, wariować, hipostazjować	/daljo/ dalio, akacjo, pasjo, eksmisjo, drogerio, dyrekcjo
/ju/	/ju/ już, juk, jutrzenka, junak, jutro, juści	———	———

b) w+V

Table 7

Position	Initial	Medial	Final
/wy/	/wysy/ łysy, łyko, łyżka, łyżwa, łypać, etc.	/swynny/ słynny, młyn, słyszeć, płynny, błyszczeć, etc.	/zwy/ zły, mgły, pchły, pobladły, widły, dorosły,
/we/	/web/ łeb, Łeba, łezka, łechtać,	/upadweś/ upadłeś, zgadłeś, skradłeś, zbłądziłem, zbladłem,	/mdwe/ mdłe, złe, zmokłe, zbladłe, zgasłe, upadłe
/wa/	/wax/ łach, łaska, łabędź, łagodny, łakomy,	/kwami/ kłami, kłamca, złamać, złazić, odłamek	/pxwa/ pchła, mdła, karła, sadła, hasła, masła
/wo/	/wom/ łom, łopata, łotr, łopot, łono, łowca	/kwopot/ kłopot, złoto, ogłosić, odłożyć	/two/ tło, pchło, sadło, mydło, gardło
/wu/	/wuk/ łuk, łuna, łupić, łuska, łów, łóżko	/dwuto/ dłuto, ogłupieć, długi sługa, chałupa	/zwu/ złu, hasłu, mydłu, gardłu

w + V sequences in Polish show no restrictions.

3.4. Polish falling diphthongs.

a) V+j

Table 8

Position	Initial	Medial	Final
/ij/	———	/ǯmijka/ żmijka, harmonijka, pijmy Walijczyk, lesbijka	/kij/ kij, żmij, wij, pij, zwij
/yj/	———	/šyjka/ szyjka, kołomyjka, Aryjczyk, Syryjczyk, Iberyjczyk	/myj/ myj, żyj, ryj, przykryj, chryj
/ej/	/ejǯe/ ejże[1]	/m'ejski/ miejski, wiejski, alejka, kolejka, lżejszy, tutejszy	/dobrej/ dobrej, bliżej, dalej, nalej, śmiej, małej
/aj/	———[2]	/fajka/ fajka, grajka, strajk, zajmować, bajka	/kraj/ kraj, maj, bodaj, daj
/oj/	/Ojc'ec/ ojciec[3], ojczym, Ojców	/vojsko/ wojsko, strojny, bojkot, wojny, bogobojny	ukoj, ahoj[4]
/uj/	/ujma/ ujma[5], ujrzeć, ujście	/bujn'e/ bujnie, bujda, bójka, sójka, stójkowy	/sfuj/, swój, słój, słój, żuj, zbój, kuj

[1] Appears only occasionally in that position.

[2] Appears very rarely in foreign words: /ajnos/ for Ajnos.

[3] The appearance of /oj/ in that position is occasional.

[4] /oj/ in that position is occasional.

[5] /uj/ in that position appears only occasionally.

b) There is also a group of /V+j/ diphthongs with nasal glides[1]:

Table 9

Position	Initial	Medial	Final
/įj̨/	———	/śfįj̨ski/ świński	/zvįj̨/ zwiń, giń, świń
/y̨j̨/	———	/kydry̨j̨ski/ Kydryński, młyński	/pwy̨j̨/ płyń, słyń
/ęj̨/	———	/ręj̨ski/ reński, żeński, Leński	/duręj̨/ dureń, jeleń, zieleń
/ǫj̨/	———	/kǫj̨ski/ koński, płoński —	/dwǫj̨/ dłoń, słoń, skroń, koń
/ąj̨/	———	/mąj̨ka/ Mańka, Gdański, drański	/zostąj̨/ zostań, podań, śniadań
/ųj̨/	———	/dųj̨ski/ duński, toruński	/plųj̨/ pluń, ruń, suń

[1] Polish diphthongs of the V + j type with nasal glides cannot appear in the initial position.

c) V+w

Table 10

Position	Initial	Medial	Final
/iw/	———	/miwka/ Miłka, piłka, zgniłki /colloquial/	/biw/ bił, pił, walił, złościł, okrwawił, osłabił
/yw/	———	/ʒ̇ywka/ żyłka, pomyłka, pyłka, baryłka	/ʒ̇yw/ żył, opatrzył, tył, był, szył
/ew/	/ewk/ Ełk, Europa[1] euforia, eutanazja, Eufrat	/pewny/ pełny, bełkot, pełzać, wełna, świątopełk	/śf'atew/ świateł, skrzydeł, wideł, mydeł, szydeł
/aw/	/awtaj/ Ałtaj, Austria, autograf, autorytet, aureola, auspicje	/pawka/ pałka, wałkoń, chałka, Suwałki	/spaw/ spał, wylał, oddychał, popychał, umykał, cymbał
/ow/	/ʒowtaʒ/ ołtarz[2]	/kown'eʒ̇/ kołnierz żołnierz, kołpak, stołka, kołtun	/os'ow/ osioł, grajdoł, dzięcioł, matoł, Mongoł
/uw/	———	/kuwka/ kółka, szkółka, półka, grzegżółka	/kuw/ kuł, pluł, psuł, szkół, pszczół
/ęw̨/	/ęw̨briologja/ embriologia[3], empiryzm	/bęw̨dęw̨/ będę, wszędzie, ręka, zębowy, dębowy	/zebręw̨/ zebrę,[4] febrę, biorę, toczę, usiądę
/ǫw̨/	/ǫw̨drasek/ Ondraszek, ontologia	/mǫw̨tva/ mątwa, mąka, strąk, krąg, rąk	/travǫw̨/ trawą, mątwą, gromadą, kupą, tratwą
/ąw̨/	/ąw̨s/ ans. Ambroży amfiteatr,	/trąw̨aj/ tramwaj,	———

[1] Appears in native words very rarely.

[2] Found only occasionally.

[3] Found only in foreign words.

[4] In colloquial Modern Polish the pronouncing of /ew/ in final position is rather artificial.

[5] Appears only occasionally.

IV. THE COMPARISON OF THE DISTRIBUTION OF POLISH AND ENGLISH DIPHTHONGS

4.1. There are three types of diphthongs in English and only two types in Polish. There is no schwa in Polish. Such Polish words as *aeroplan, licea, muzea* contain sequences of two vowels /a+e/ or /e+a/. Each of the vowels is syllabic. Falling and rising diphthongs show many similarities. Structures of diphthongs are the same: V+j, V+w, j+V and w+V. No other structures are present in either of the two languages as far as falling and rising diphthongs are concerned, except that Polish glides have nasal variants.

4.2. Let us examine the distribution of English and Polish diphthongs.

4.3. Rising diphthongs.

Table 11

Position	Initial	Medial	Final
English /jɛ/	+	—	—
English /jɜ/	+	—	—
English /jə/	+	+	+
English /je/	+	—	—
Polish /je/	+	+	+
English /ja/	+	—	—
English /jɑ/	+	+	—
Polish /ja/	+	+	+
English /jɔ/	+	—	—
English /jo/	+	—	—
Polish /jo/	+	+	+
English /ju/	+	+	+
Polish /ju/	+	—	—

Very often the articulation of glides is different in both languages. Nevertheless, it seems reasonable to find corresponding diphthongs in the two languages.

There are more English diphthongs of the type j+V because English has more vowels. Polish diphthongs can occur in medial and final positions more freely, and in final positions, except /ju/. Only one English diphthong can occur freely in the final position /jə/. /j/ is found in that position very rarely. Here may be included some advice for both Polish and English learners. Poles learning English have to be taught to reduce final vowels of j+V to /ə/, and Englishmen who learn Polish have to be taught to diversify and pronounce distinctively the final glide of j+V type.

All English and Polish diphthongs can occur in the initial positions.

Table 12

Position	Initial	Medial	Final
English /wi/	+	+	—
Polish /wy/	+	+	+
English /wə/	—	+	+
English /wɜ/	+	+	—
English /wɛ/	+	+	—
English /we/	+	+	—
Polish /we/	+	+	+
English /wa/	+	—	—
Polish /wa/	+	+	+
English /wɔ/	+	+	—
English /wo/	+	+	—
Polish /wo/	+	+	+
English /wu/	+	+	—
Polish /wu/	+	+	+

The number of English diphthongs of the type w+V is greater than the number of Polish diphthongs of that structure. Almost all Polish and English can appear in the initial position (except English /wə/) and medial (except English /wa/). All Polish diphthongs of that type can occur freely in the final position. English diphthongs are found rarely in that position.

4.4. Falling diphthongs.

Table 12

Position	Initial	Medial	Final
English /ij/	+	+	+
Polish /ij/	−	+	+
Polish /yj/	−	+	+
English /ej/	+	+	+
Polish /ej/	+	+	+
English /aj/	+	+	+
Polish /aj/	−	+	+
English /ɔj/	+	+	+
Polish /oj/	+	+	+
Polish /uj/	+	+	+

The number of Polish diphthongs of that type is much greater when taking into consideration nasal varieties. All English diphthongs of the type (V+j) can occur in the initial position while the occurrences of Polish diphthongs of that type are occasional (see 3.4.). Possibly here is the source of the tendency of Polish learners of English to pronounce many English words having a diphthong in the initial position as single vowels.

Table 13

Position	Initial	Medial	Final
Polish /yw/	−	+	+
Polish /iw/	−	+	+
Polish /ew/	+	+	+
English /aw/	+	+	+
Polish /aw/	+	+	+
English /ɜw/ American /ow/	+	+	+
Polish /ow/	+	+	+
English /uw/	−	+	+
Polish /uw/	−	+	+

The number of Polish diphthongs of that type is greater than the number of English (V+w) diphthongs, especially when taking into consideration nasal varieties. (see 3.4.c) as with in the preceding type all English and Polish diphthongs can appear freely in medial positions. English (uw) does not appear in the initial position. The appearance of Polish diphthongs of that type in that position is occasional (may be except /aw/).

4.5. Centring diphthongs do not appear in Polish and they may constitute a considerable problem to Polish Learners.

REFERENCES

Dłuska, M. 1950. *Fonetyka polska*. Part I. Kraków: Wydawnictwo Studium Słowiańskiego UJ.

Jassem, W. 1964. *Fonetyka języka angielskiego*. Warszawa: PWN.

Jones, D. 1917. *Everyman's English pronouncing dictionary*. London: J. M. Dent and Sons Ltd.

Kenyon, S. Y. and T. A. Knott. 1953. *A pronouncing dictionary of American English*. Springfield, Mass.: G. and C. Merriam Company Publishers.

Koneczna, H. 1965. *Charakterystyka fonetyczna języka polskiego*. Warszawa: PWN.

Pei, M. 1966. *Glossary of linguistic terminology*. New York: Anchor Books.

Szober, S. 1963. *Słownik poprawnej polszczyzny*. Warszawa: PIW.

Trnka, B. 1968. *A phonological analysis of present day standard English*. Alabama: University of Alabama Press.

THE DISTRIBUTION OF NON-SYLLABIC PHONEMES IN ENGLISH AND POLISH

Wiesław Awedyk

Adam Mickiewicz University, Poznań

0.0. The distinction between vowels and consonants has been made on two levels:

1. Phonetic. Vowels are defined as a class of sounds whose degree of opening of the vocal tract is not smaller than that for [i]. All other sounds are labelled consonants (Cf. Zabrocki 1961, Chomsky and Halle 1968).
2. Functional. Vowels are primarily syllabic, consonants — non-syllabic.

These two classifications overlap and hence such terms as non-syllabic vowels (or semivowels) and syllabic consonants have been introduced. Pike's (1947) distinction between vowel : consonant and vocoid : contoid does not seem to solve the problem. For example, in the English diphthong [iə] the narrower element [i] has to be labelled [+peak], while a more open element [ə] has to be marked as [-peak] (Cf. Abele 1924 : 5). But the Polish word *aorta* "aorta" with the stress on [ɔ] consists of three syllables. From the functional point of view [a] will be then the only true vowel. On the other hand, in languages like Bella Coola (Cf. Greenberg 1962) and in some Eastern Sudanic languages (Cf. Tucker 1940) spirants are regularly syllabic. Thus, from the functional point of view, stops will be the only true consonants.

0.1. The analyst meets with a number of difficult problems. For example it is not quite clear why one should distinguish the [w] in [wʌ n] *one* and the [u] in [hau] *how* or between the [j] in [ja: d] *yard* and the [i] in [bai) *by*. According to Gimson (1966) it is rather the practical aspect (i.e. simplicity) than any other that makes the linguist reject such diphthongs as [wʌ] and [ja:]. It is true that [w] and [j] are narrower than [u] and [i], but when the articulation is prolonged, they change into [u] and [i], respectively (Cf. Wierzchowska 1971). Thus it is the length and not the degree of opening that seems to be relevant here. Similarly, Francis (1965 : 188) transcribes *littler* /litllr/ and maintains that the word consists of three syllables; /i/, the second /l/ and /r/ are syllabic according to him.

0.2. It seems therefore advisable to use the terms vowel and consonant only in the phonetic sense and the terms syllabic and non-syllabic in the functional sense. The syllabic : non-syllabic distinction will naturally vary from language to language and it is hardly possible to work out a universal classification of sounds based on a certain number of distinctive features as Chomsky and Halle (1968) propose.

1.0. In this article we shall discuss the distribution of non-syllabic phonemes in English (British) and Polish. The traditional diphthongs have been preserved and our distinction between [w] and [j] and [u] and [ɪ] is functional. The [w] in [wʌn] and the [j] in [ja: d] will be marked [–syllabic], while the [v] in [av] and the [ɪ] in [aɪ] will be labelled $\begin{bmatrix}+\text{syllabic}\\ -\text{peak}\end{bmatrix}$, [a] will have the features $\begin{bmatrix}+\text{syllabic}\\ +\text{peak}\end{bmatrix}$.

1.1. The analysis is based on Zabrocki's (1962) phoneme theory, which was briefly summarized in my article "The Syllabic Structures of English and Polish" (Awedyk 1973: 84-90). The analysis is limited to pre- (in word initial) and post-syllabic (in word final) positions. In word medial position, when relevant, the pre-non-syllabic position will also be discussed. The clusters of non-syllabic phonemes were presented in the above mentioned article.

1.2. Below we present the inventories of English and Polish non-syllabic phonemes:

English: /w j h r l n ŋ m ð θ v f z s ʒ ʃ d͡ʒ t͡ʃ d t b p g k/ (Cf. Gimson 1966).

Polish: /w j x r l n p m v f z s ʒ ʃ ź ś d͡z t͡s d͡ʒ t͡ʃ d͡ʑ t͡ɕ d t b g k/ (Cf. Jassem 1966, Łobacz 1971, Wierzchowska 1971.)

2.0. The distribution of English non-syllabic phonemes (A= allophone, M=minus phone, if unmarked=plus phone).

/w/	*well*	*award*	M
/j/	*yard*	*lawyer*	M
/h/	*he*	*behave*	M
/r/	*read*	*hurry*	M
/l/	*lock*	*silver* A *saline*	*hill* A
/n/	*nice*	*banner*	*son*
/ŋ/	M	*stinger*	*sing*

/m/	*my*	*summer*	*some*
/ð/	*that*	*rather*	*bathe*
/θ/	*thing*	*method*	*path*
/v/	*value*	*never*	*five*
/f/	*film*	*coffee*	*half*
/z/	*zip*	*cosy*	*nose*
/s/	*sun*	*placid*	*notice*
/ʒ/	*gigolo*	*pleasure*	*rouge*

It has to be noted that in initial and final positions /ʒ/ appears only in French loan-words. An alternative pronunciation with /d͡ʒ/ is also permissible (OED 1933).

/ʃ/	*shake*	*caution*	*wash*
/d͡ʒ/	*job*	*margin*	*bridge*
/t͡ʃ/	*chair*	*duchess*	*which*
/d/	*day*	*tawdry* A *lesser*	*nod*
/t/	*time*	*nitrate* A *matter*	*what*
/b/	*beam*	*lobby*	*rib*
/p/	*pick*	*leopard*	*stop*
/g/	*gay*	*eager*	*big*
/k/	*come*	*rocket*	*duck*

2.1. The most characteristic feature of the distribution of English non-syllabic phonemes is the absence of neutralization, i.e., no phoneme can be realized as a neuter phone. The phonemes /w j h r/ occur as minus phones in final position, and /ŋ/ is realized as a minus phone in initial position. /l/ has an alveolar-velar allophone in medial pre-non-syllabic position and in final position. The phonemes /d t/ have retroflex allophones in medial (and initial) position in the context in front of /r/.

3.0. The distribution of Polish non-syllabic phonemes (A=allophone, N=neuter phone, if unmarked=plus phone).

/w/	*lawka* "*desk*"	*kolo* "circle"	*dól* "pit"
/j/	*ja* "I"	*krajać* "cut"	*bój* "battle"
/x/	*chór* "choir"	*machać* "wave"	*dech* "breath"
/r/	*rama* "frame"	*para* "vapour"	*ser* "cheese"
/ʎ/	*luty* "February"	*wola* "will"	*bal* "dance"
/n/	*nowy* "new"	*banku* A "bank" Loc. *rana* "*wound*"	*syn* "son"
/ɲ/	*nie* "no"	*koniec* "end"	*koń* "horse"
/m/	*mowa* "speech"	*tama* "dam"	*dom* "house"

/v/	*wilk* "wolf"	*ławka* N "desk" *mowa* "speech"	*łów* N "hunting"
/f/	*fala* "*wave*"	*lufa* "barrel"	*traf* "coincidence"
/z/	*za* "beyond"	*kózka* N "she-goat" Dim. *kazać* "order"	*raz* N "blow"
/s/	*sen* "sleep"	*kosa* "scythe"	*nos* "nose"
/ʒ/	*żaba* "frog"	*łyżka* N "spoon" *morze* "sea"	*mąż* N "husband"
/ʃ/	*szary* "grey"	*dusza* "soul"	*mysz* "mouse"
/ʑ/	*ziemia* "earth"	*buźka* N "mouth" Dim. *bazia* "catkin"	*maź* N "grease"
/ɕ/	*siostra* "sister"	*tysiąc* "thousand"	*ktoś* "somebody"
/d͡z/	*dzyndzyk* "pendant"	*możnowładztwo* N "the magnates" *wiedza* "knowledge"	*widz* N "spectator"

/d͡z/ is extremely rare in initial pre-syllabic position.

/t͡s/	*cel* "aim"	*lico* "face"	*owoc* "fruit"
/d͡ʒ/	*dżem* "jam"	*móżdżka* N "brains" Gen. Sg. *drożdże* "yeast"	*brydż* N "bridge"
/t͡ʃ/	*czapka* "cap"	*paczyć* "warp"	*klacz* "mare"
/d͡ʑ/	*działać* "act"	*bodźca* N "stimulus" Gen. Sg. *miedziany* "copper"	*śledź* N "herring"
/t͡ɕ/	*ciasny* "tight"	*pociąg* "train"	*nać* "vegetable leaves"
/d/	*dom* "house"	*wypadki* N "Accident" N. Pl.	*jad* N "poison"
/t/	*tor* "track"	*luty* "February"	*brat* "brother"
/b/	*but* "shoe"	*żabka* N "frog" Dim. *niebo* "sky"	*dąb* N "oak-tree"
/p/	*pora* "season"	*zupa* "soup"	*stop* "alloy"
/g/	*gęś* "goose"	*noga* "leg"	*wróg* N "enemy"
/k/	*kosz* "basket"	*pukać* "knock"	*rok* "year"

3.1. The distribution of Polish non-syllabic phonemes shows the following characteristic features:

a) no phoneme is realized as a minus phone in any position

b) in final and medial position when followed by a voiceless phoneme, voiced phonemes are realized as neuter phones, i.e., the opposition voiced : voiceless is neutralized in those positions

/ /		Initial		Medial		Final	
Engl.	Pol.	English	Polish	English	Polish	English	Polish
w	w	P	P	P	P	M	P
j	j	P	P	P	P	M	P
h	x	P	P	P	P	M	P
r	r	P	P	P	P	M	P
l	l	P	P	A P	P	A	P
n	n	P	P	P	A P	P	P
—	ɲ	—	P	—	P	—	P
ŋ	—	M	—	P	—	P	—
m	m	P	P	P	P	P	P
ð	—	P	—	P	—	P	—
θ	—	P	—	P	—	P	—
v	v	P	P	P	N P	P	N
f	f	P	P	P	P	P	P
z	z	P	P	P	N P	P	N
s	s	P	P	P	P	P	P
ʒ	ʒ	P	P	P	N P	P	N
ʃ	ʃ	P	P	P	P	P	P
—	ź	—	P	—	N P	—	N
—	ś	—	P	—	P	—	P
—	d͡z	—	P	—	N P	—	N
—	t͡s	—	P	—	P	—	P
d͡ʒ	d͡ʒ	P	P	P	N P	P	N
t͡ʃ	t͡ʃ	P	P	P	P	P	P
—	d͡ʑ	—	P	—	N P	—	N
—	t͡ɕ	—	P	—	P	—	P
d	d	P	P	A P	N P	P	N
t	t	P	P	A P	P	P	P
b	b	P	P	P	N P	P	N
p	p	P	P	P	P	P	P
g	g	P	P	P	P	P	N
k	k	P	P	P	P	P	P

c) allophonic (in Zabrocki's 1962 terminology) realization is extremely rare in Polish, only one phoneme /n/ has a velar allophone in medial position when followed by /g k/.

4.0. The comparison of the distribution of English and Polish non-syllabic phonemes is presented in the table (A=allophone, M=minus phone, N=neuter phone, P=plus phone).

4.1. The comparison of the distribution of non-syllabic phonemes in English and Polish reveals two basic differences:

1. The lack of neutralization in English. In Polish the opposition voiced : voiceless is neutralized in final position and in medial position in front of voiceless phonemes.
2. The minus phone realization is not found in Polish, i.e., no phoneme can be realized as a minus phone in any position. In English /w j h r/ and /ŋ/ are realized as minus phones in final and initial positions, respectively.

In word initial pre-syllabic position there are almost no differences in the distribution of non-syllabic phonemes. The greatest differences seem to appear in word final position: in English /w j h r/ occur as minus phones, while in Polish all voiced phonemes are realized as voiceless neuter phones in this position.

REFERENCES

Abele, A. 1924 - 5. "K voprosu o sloge". *Slavia* 3. 1 - 34.

Awedyk, W. 1973. "The syllabic structures of English and Polish". *Papers and studies in contrastive linguistics* 2. 84-90.

Chomsky, N. and M. Halle. 1968. *The sound pattern of English*. New York: Harper and Row.

Gimson, A. C. 1966. *An introduction to the pronunciation of English*. London: E. Arnold Publishers Ltd.

Greenberg, J. H. 1962. "Is the vowel-consonant dichotomy universal"? *Word* 18. 73 - 81.

Jassem, W. 1966. "The distinctive feature and the entropy of Polish phoneme system". *Biuletyn PTJ* XXIV. 87 - 108.

Łobacz, P. 1971. "Entropia oraz parametry akustyczne jako kryteria interpretacji fonematycznej". *Biuletyn PTJ* XXIX. 77 - 94.

Oxford English dictionary, The. 1933 (Reprinted 1961).

Pike, K. L. 1947. *Phonemics*. Ann Arbor: The University of Michigan Press.

Tucker, A. N. 1940. *The Eastern Sudanic languages*. Oxford: Oxford University Press.

Wierzchowska, B. 1971. *Wymowa polska*. Warszawa: PZWS.

Zabrocki, L. 1961. "Les sonantes à la lumière de la phonétique structurale". *Biuletyn fonograficzny* IV. 3 - 20.

— 1962. "Phon, phonem und distinktives morphem". *Biuletyn fonograficzny* V. 59 - 87.

THE SYLLABIC STRUCTURES OF ENGLISH AND POLISH

Wiesław Awedyk

Adam Mickiewicz University, Poznań

0.0. The syllable is one of the central problems in linguistics. In diachronic as well as in synchronic studies the researcher is forced to take this notion into consideration. Certain linguistic changes, like the umlaut, involve the syllable; the analysis of the distribution of phonemes should be also performed in terms of the syllable-initial and syllable-final positions (Cf. Haugen 1956). Different syllable structures of various languages are a source of great difficulties for students of foreign languages. To help the student to overcome them, the linguist must be aware of the differences in the structure of the syllable of the native language and of the foreign language in question in order to provide the learner with selected drills.

0.1. The notion of the syllable has a very long history, beginning with the Indian grammarians. The syllable has been approached both from the phonetic and the phonemic point of view and defined in various ways (Cf. Awedyk 1971). In our opinion the syllable is a phonetic unit and the opening of the vocal tract is the basis of syllable formation. The structure of the syllable may be presented symbolically as #/X/ O /Y/# where O stands for the most open sound of the syllable, i.e., the syllabic, X for a less open sound (or a sequence of less open sounds) which may precede the syllabic, and Y for a less open sound (or a sequence of less open sounds) which may follow the syllabic. The syllable has various manifestations in different languages, i.e., the structure of a particular language determines what phonemes can appear in the positions O, X, and Y.

1.0. When we want to describe the syllabic structure in a given language, our first step is the phonemic analysis. Recently, the notion of the phoneme and the phonemic analysis has been rejected (Chomsky and Halle 1968).

The discussion of this problem is outside the scope of our paper, let us only consider a very simple example. In the utterance *The train is due at ten* three different t-sounds appear. According to Chomsky and Halle the system of phonological rules assigns a phonetic interpretation to each surface structure (Chomsky and Halle 1968 : 14). In this case the system of rules must specify the [t] in *train* as a retroflex sound, which is quite different from the [t] in *ten* and *at*. Yet these sounds are grouped into one unit. And this is nothing else but the phonemic analysis.

1.1. Our approach is based on Zabrocki's phoneme theory (Zabrocki 1962). In his opinion the phoneme is first of all a syntagmatic unit and the syntagmatic analysis is primary to paradigmatic.

The input of the analysis is the text. Texts are first divided into words; words in turn are divided into segments on the basis of extreme acoustic contrasts of articulation : close : open. The degree of the opening of the vocal is the primary differentiating principle. Thus all sounds are divided into two classes: open and close. Within each class, sounds are further subdivided on the basis of oppositions like voiced : voiceless, short : long, and so on. For example, in the word *cut* [k] is distinguished from [ʌ] because the former is a close sound and the latter is an open sound: the feature "close" is then relevant for [k]. On the other hand, in the sequence [tl], [t] is distinguished from [l] because [t] is voiceless and [l] is voiced: the feature "voiceless" is then relevant for [t]. Not all features can be specified in direct contact; indirect contact must be also taken into consideration. In the word *public* the following features become primary, e.g., [p] : [b] equal voiceless : voiced, [ʌ] : [i] equal low : high, etc. The features that are primary in direct and in indirect contacts form a unit called the phone. The difference between a phone and a sound consists in this: a phone is always constant, while a sound may be pronounced in different ways depending on the context. Thus in *keep, cool, cap* three different k-sounds occur, but one phone [k]. The phone consists of diffusive and confusive features. The former are those which distinguish one phone from another, the latter are those common to two or more phones. The examination of the distribution of phones in words brings us to a unit called the phoneme: "Ein Phon mit der entsprechenden Verteilungsfunktion im Wort nennen wir Phonem. Phoneme sind somit verteilungsfunktionsgeladene Phone" (Zabrocki 1962 : 66). A phone belongs to a phoneme when it can occur in all positions in a word, but, practically, full distribution is rare. This condition is fulfilled in various ways; phones are realized as plus phones (Cf. Grucza 1967), neutral phones, minus phones, and allophones. A plus phone has all the diffusive and confusive features e.g., Polish /d/ in word initial position is realized as [d]. A neutral phone has only confusive features, e.g. Polish /d/ in word final position occurs as [t]. A minus phone has neither diffusive nor confusive features, e.g., English /ŋ/ in word initial position. When two phones hold certain confusive features in common and they do not occur in the same context, those two phones belong to the same phoneme. One of them will be given a label the "plusphone", the other an allo phone. For example, in Polish [η] occurs only before [k, g]/, where [n] does not appear. Thus [ŋ] and [n] constitute one phoneme /n/; [n] is the plusphone and [η] is the allophone. It also happens that two phones never occur in the same position, yet they do not belong to the same phoneme, e.g., [h] and [η] in English. The possibility of assigning these two phones to one phoneme is ruled out because they have no confusive features.

1.2. The procedure described above leads to the establishment of the phoneme inventory in a given language. Below we present the phoneme inventories of English (British) and Polish.

English: /i: i e æ ʌ a: ɑ ɔ: ʊ u: ɜ: ə ei ai ɔi əʊ aʊ iə w j h r l m n η θ ð v f z s ʒ ʃ t͡ʃ d͡ʒ d t b p g k/ (Gimsom 1970).

Polish: /a õ ɔ ẽ ɛ ɪ u i w j x r l n ɲ m v f z s ʒ ʃ ʑ ɕ d͡z t͡s d͡ʒ t͡ʃ d͡ʑ t͡ɕ d t b p g k/ (Wierzchowska 1965, Jassem 1964).

2.0. Having established the phoneme inventory of a given language, we determine the syllabic phonemes. We investigate the phoneme occurences in words since the word is the most convenient unit for a great number of languages and syllables usually do not bridge words. We have the right to make an assumption that the most open phonemes, the vocalic phonemes, are syllabic. Then we have to determine whether other phonemes can perform this function. In English, for example, the consonantal resonants /r l n m/ are syllabic when they occur between two consonants, or between a consonant and open transition or vice versa, or between two open transitions (Cf. Francis 1965). The syllabic phoneme forms the nucleus of the syllable which may be either simple or complex, i.e., it may consist of one or more segments. The nucleus is an irreducible constituent of the syllable.

2.1. The lists of syllabic phonemes in English and Polish are as follows:

English: vocalic nucleus
  a) simple /i: ɪ e æ ʌ a: ɑ ɔ: ʊ u: ɜ: ə/
  b) complex /ei ai ɔi əʊ aʊ iə/
  consonantal nucleus /r l n m/
Polish: vocalic nucleus /a õ ɔ ẽ ɛ ɪ u i/.

3.0. Next we establish the sequences of phonemes which may precede (onset) and follow (coda) the syllabic. The onset is the sequence of phonemes which appears between the beginning of the word and the first syllabic; the coda is the sequence which is between the last syllabic and the end of the word. Then we determine the number of positions and the membership of each position (Cf. Hockett 1955, Haugen 1956). The onset and the coda are syllable margins.

3.1. A limited size of this paper does not allow us to present the lists of English (Fisiak 1968, Trnka 1968) and Polish (Bargiełówna 1950) onsets and codas the number of which, especially in Polish, is very large. We shall discuss only the number of positions and the membership of each position. English onsets include from zero, e.g., *all*, to three positions, e.g., /spr-/ *spring*. Polish onsets include from zero, e.g., *on* 'he', to four positions, e.g., /pstr-/ *pstry* 'many-coloured'. English codas include from zero, e.g., *mother*, to four positions, e.g., /-ksts/ *texts*. Polish codas include from zero, e.g., *lato* 'summer', to four positions, e.g., /-mstf/ *kłamstw* Gen. Pl. of *kłamstwo* 'lie'.

The membership of onset and coda positions is presented in the table.

4.0. The lists of onsets and codas serve as the basis for the division of intersyllabic sequences (interludes), i.e., the sequences which occur between two consecutive syllabics in a word. English interludes include from zero e.g., *coeducation*, to four positions, e.g., /-nstr-/ *monstrous*. Polish interludes include from zero, e.g., *aorta* 'aorta', to five positions, e.g., /-zvzgl-/ *bezwzględny* 'absolute'.

On the basis of the onset-coda dictionary the Polish interlude /-lxn-/ *pulchny* 'plump' will be divided /-lx+n-/ since /-lx/ is an admissible coda in Polish. The divisions before /l/ and after /n/ are impossible because neither /lxn-/ nor /-lxn/ occur in Polish. Similarly, in English the division of the interlude /-nf-/ *confidence* is /-n+f-/ since neither /-nf/ nor /nf-/ are permitted in English.

4.1. The division of interludes is rarely so simple as in the above examples. Generally, more than one division is possible, i.e., the dictionary of onsets and codas allows us to divide the interlude in two or more ways. For example, in the English interlude /-st-/ *dusty* at least two divisions are possible: (1) /-s+ +t-/ or (2) /-st/. The first division will be, however, a preferable one since in English the syllable type /VC+CV/ is more frequent than the type /V+CCV/: the former occurs 298 times, the latter 38 times (O'Connor and Trim 1953: 121). The Polish interlude /-rstf-/ *czerstwy* 'stale' can be divided in more than two ways but a preferable division will be /-rs+tf-/ because it is statistically favoured (Bargiełówna 1950: 22 - 25). Thus the statistical basis will be our second criterion for the division of interludes.

4.2. Our third criterion for the division of interludes is the distribution of phonemes. On the basis of the onset-coda dictionary the English interlude /-tr-/ in *nitrate* can be divided in two ways: (1) /nai+treit/ or (2) /nait+reit/. Here the occurence of the retroflex allophone of /t/ which appears only in the position /#—/r/ indicates that the division is before /t/.

4.3. The occurence of the morpheme boundary may influence the division of interludes, especially in those cases when the speakers are still conscious of it. For example, in Polish the interlude /-xstr-/ *wszechstronny* 'comprehensive' will be divided into /-x+str-/ according with the occurence of the morpheme boundary.

	Onset					Coda			
	O₄	O₃	O₂	O₁		C₁	C₂	C₃	C₄
ENGLISH		/s/	/h l n m θ v f z s ʃ d t b p g k/	/w j h r l n m ð θ v f z s ʃ d͡ʒ t͡ʃ d t b p g k/	NUCLEUS	/l n ŋ m ð θ v f z s ʒ ʃ d͡ʒ t͡ʃ d t b p g k/	/n m θ v f z s ʃ d͡ʒ t͡ʃ d t b p k/	/θ z s d t/	/s t/
	NONE	1	16	22		20	15	5	2
POLISH	/v f s ʑ b p g/	/z s ʒ ʃ ɕ t͡s d͡ʑ d t b p g k/	/w x r l m v f z s ʒ ʃ ʑ ɕ d͡z t͡s d͡ʒ t͡ʃ d͡ʑ t͡ɕ d t b p g k/	/w j x r l n ɲ m v f z s ʒ ʃ ʑ ɕ d͡z t͡s d͡ʒ t͡ʃ d͡ʑ t͡ɕ d t b p g k/		/w j x r l n ɲ m v f z s ʒ ʃ ʑ ɕ d͡z t͡s d͡ʒ t͡ɕ d͡ʑ t͡ɕ d t b p g k/	/w x r l n ɲ m v f s ʒ ʃ ɕ d͡z t͡s t͡ʃ d͡ʑ t͡ɕ d t b p g k/	/w r m f s ʃ t͡s t͡ʃ t͡ɕ t b k/	/f s/
	7	13	25	28		28	24	12	2

4.4. The question of single intervocalic consonants presents a problem in English (in Polish they go with the following syllabic). On the basis of the principle that stressed syllables with short vowels must be checked /pætə/ *patter* is divided into /pæt+ə/ (Haugen 1956). Other scholars maintain that the /t/ in /pætə/ is ambisyllabic (Trager and Bloch 1941). According to Kuryłowicz a single intervocalic consonant goes always with the following syllable (Kuryłowicz 1948). This problem may be solved in terms of the frequency of different syllable types. Since in English the type /CV/ is more frequent than the type /VC/, /pætə/ will be divided into /pæ+tə/.

4.5. The division of interludes is one of the most difficult problems in the theory of the syllable. Except for a relatively small number of cases when the divisions can be made only on the basis of the onset-coda dictionary, the divisions are more or less arbitrary. One division will be, however, always preferable either because of a higher frequence of certain syllable types or because of the occurence of a particular allophone or the morpheme boudary. The researcher has to accept the principle of higher and lower degree of probability (cf. Zabrocki 1961) or we will face a number of insoluble problems.

5.0. The comparison of the syllabic structures in English and Polish reveals the following differences:

a) The structure of the nucleus.

In English the nucleus may be both simple and complex while in Polish it is always simple.

In English the nucleus position may be occupied by the resonants /r l n m/. In Polish only vocalic phonemes can perform this function.

b) The structure of the onset.

English onsets may include from zero to three positions and the position O_3 may be occupied only by /s/. Polish onsets may include from zero to four positions. Out of 24 English consonantal phonemes 16 can appear in the position O_2. Out of 28 Polish consonantal phonemes only three /j n ɲ/ cannot occur in this position.

c) The structure of the coda.

Both Polish and English codas may include from zero to four positions, in English, however, /s t/ occur only after the morpheme boundary. Only 15 English consonantal phonemes can appear in the position O_2. In this position 24 Polish consonantal phonemes occur.

d) The structure of the interlude.

English interludes may include from zero to four positions, Polish interludes from zero to five positions.

5.1. In sum, the differences between English and Polish syllables consist both in various structures of the nucleus and the margins, especially the structure of the onsets is strikingly different in these two languages.

REFERENCES

Awedyk, W. 1971. ,,A contribution to the theory of the syllable". *Biuletyn fonograficzny* XII. 49 - 56.

Bargiełówna, M. 1950. "Grupy fonemów spółgłoskowych współczesnej polszczyzny kulturalnej". *Biuletyn PTJ* X. 1 - 25.

Chomsky, N. and M. Halle. 1968. *The sound pattern of English.* New York: Harper and Row.

Fisiak, J. 1968. "Prevocalic consonant clusters in the history of English". *Studia Anglica Posnaniensia* 1. 3 - 14.

Francis, W. N. 1965. *The English language: An introduction.* New York: W. W. Norton and Co.

Gimson, A. C. 1970. (2nd ed.). *An introduction to the pronunciation of English.* London: E. Arnold Publishers Ltd.

Grucza, F. 1967. "Bemerkungen zur Frage: Phon — Phonem". *Biuletyn fonograficzny* VIII. 41 - 42.

Haugen, E. 1956. "The syllable in linguistic description". In: *For Roman Jakobson.* The Hague: Mouton. 213 - 221.

Hockett, Ch. F. 1955. "A manual of phonology". *IJAL* 21.

Jassem, W. 1964. "A spectographic study of Polish speech sounds". In: *In Honour of Daniel H. Jones.* London: Longmans. 334 - 343.

Kuryłowicz, J. 1948. "Contribution à la théorie de la syllabe". *Biuletyn PTJ* VIII. 80 - 114.

O'Connor, J. and J. Trim. 1953. "Vowel, consonant, and syllable — a phonological definition". *Word* 9. 103 - 121.

Trager, G. and B. Bloch. 1941. "The syllabic phonemes of English". *Language* 17. 223 - 246.

Trnka, B. 1968. *A phonological analysis of the present-day standard English.* Alabama: University of Alabama Press.

Wierzchowska, B. 1965. *Wymowa polska.* Warszawa: PZWS.

Zabrocki, L. 1961. "Les Sonantes à la lumière de la phonétique structurale". *Biuletyn fonograficzny* IV. 3 - 20.

— 1962. "Phon, phonem und distinktives morphem". *Biuletyn fonograficzny* V. 59 - 87.

SOME REMARKS ON ASPIRATION IN RECEIVED PRONUNCIATION WITH REFERENCE TO POLISH

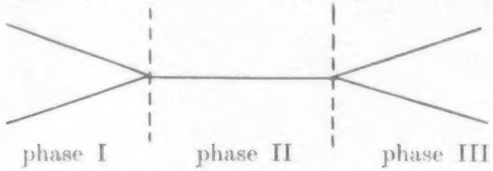
JERZY RUBACH

University of Warsaw

Aspiration in English is associated with the articulation of tense plosives (where "plosive" means a pulmonic egressive stop), i.e. [p t k]. It should be borne in mind that a plosive, from the articulatory point of view, consists of three phases:

onglide — where the articulators are coming together;
hold — when there are two closures: an oral closure (the articulators are already together not allowing for any escape of air through the mouth) and a velic closure; the air continues being pushed out from the lungs and the pressure is built up;
offglide — when the articulators open and the air escapes producing a plosion.

The following diagram shows the three stages of a plosive:



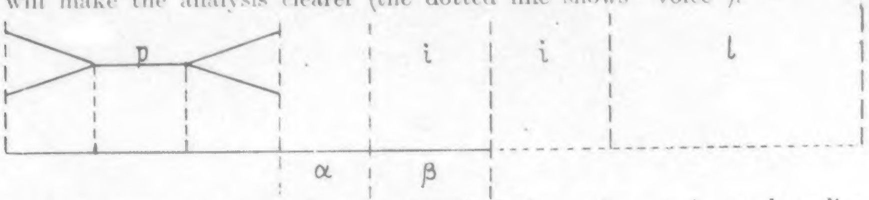
David Abercrombie using the above diagram defines aspiration as "a period of voicelessness that follows the voiceless closure phase of a stop" (1967 : 148). In other words, a plosive is aspirated if its offglide is voiceless and unaspirated if voice sets in after the hold phase. Wiktor Jassem describes aspiration as a certain vocalic segment characterized by some noise in the glottis. The noise is, however, weaker than the one that is heard at the beginning of words such as *head, heart*. This noise is defined as the aspirate (cf. Jassem 1964 : 62).

Chomsky and Halle associate aspiration primarily with pressure. For them aspiration means two things: lack of constriction at the glottis and heightened subglottal pressure (1968 : 326).

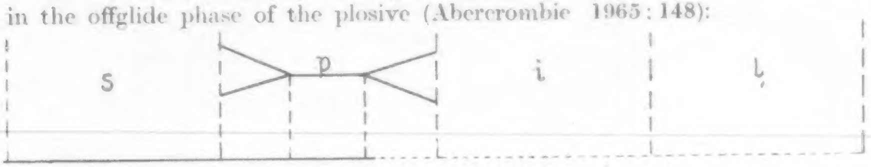
It seems, however, that, from the structural point of view, aspiration should be looked for in the analysis of segments which FOLLOW the offglide phase of a plosive and not in the analysis of the plosive itself. Let us compare the articulation of a few words:

pill — *spill*
till — *still*
kill — *skill*

It is generally agreed (cf., for example, Jassem 1964 : 62) that the initial plosives in the left-hand column are aspirated and those in the right-hand column, preceded by [s] are unaspirated. The aspirated plosives (unlike the unaspirated ones) are accompanied by an audible strong puff of air following the offglide phase. Jones says that "breath is heard" (1956 : 153). Gimson stresses that it is "a strongly expelled breath" coming between the offglide of the plosive and the onglide of the following vowel (1966 : 146). In fact the following vowel consists of two segments — voiceless and voiced (Biedrzycki 1971 : 116, cf. also Jassem 1971 : 172). The puff of air is audibly distinguishable and so strong that, it seems, one can regard it as a separate segment. Thus, the aspirated plosive is followed by two voiceless segments: the puff of air (which we will call alpha) and the vowel (which we will call beta). The diagram will make the analysis clearer (the dotted line shows "voice"):



On the other hand, in the unaspirated plosive, voice sets in much earlier, in the offglide phase of the plosive (Abercrombie 1965 : 148):



Thus, aspiration consists in the presence of two voiceless segments following the plosive: α and β. A question arises why the voiceless offglide phase is not regarded as an element of aspiration although in the diagram it appears only with aspirated sounds. It is not for two reasons: firstly, the non-relevance of the voicing or voicelessness of the offglide leaves a margin of tolerance for certain differences between unaspirated plosives (with some, voice most probably sets in after the offglide; these are usually quoted as "weakly aspirated, cf. Gimson's [p] in *polite* (1966 : 146), while in our understanding they will be variants of unaspirated plosives), secondly, it would be difficult to decide where the offglide really ends and the *a* segment begins (the offglide phase is extremely short).

Now let us examine the devoicing of consonants which can follow plosives:[1]

According to Jassem (1971):
play, clean [l] completely devoiced (221)
split, quickly [l] half devoiced, i.e. consisting of two segments — voiceless and voiced (222)
proud, cry[2] [r] completely devoiced (259)
spray, scream, apron, secret [r] half-devoiced (259)
pure, tune, cure, [j] completely devoiced (261)
spurious, student, skewer, virtue, percutaneous [j] half-devoiced (261)

According to Gimson (1966):
twig, queen [w] completely devoiced (212)
square, upward, outward, equal [w] half-devoiced (211)

It should be noticed that there is complete devoicing of the following consonant when it is preceded by a tense plosive in a stressed syllable,i.e. in the position where we usually have aspiration. On the other hand, consonants are only half-devoiced when the plosive appears after [s] or word-medially, i.e. in the positions where there is no aspiration. These observations lead one to the conclusion that the cases of complete devoicing of the consonant following the plosive should be regarded as a manifestation of aspiration although of a different kind than in the sequences plosive+vowel.

A question arises whether there are any similarities between the type of aspiration as described formerly and the consonant-devoicing type of aspiration. The answer is affirmative if certain theoretical solutions are recognized. It seems possible, though quite arbitrary, to regard the completely voiceless [l r j w] as sequences of two segments which happen to be identical[3]. There is no doubt that "the half-devoiced" consonants *are* sequences of two segments: voiceless and voiced (cf. Jassem 1971 : 94). The postulation of two identical

---

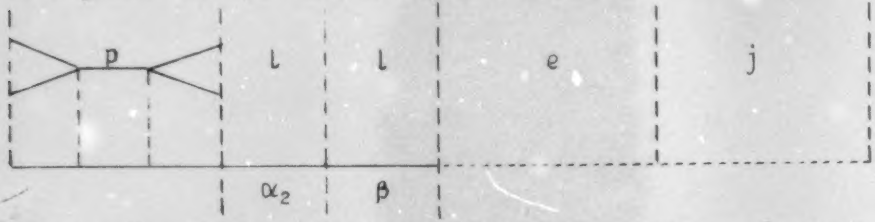
[1] If we exclude non-English words such as *tse-tse* and unusual secondary pronunciations such as [ps] in *psychology*, then word-initial plosives can only combine with [l r j w.]

[2] [tr] should be treated as a voiceless affricate of the same nature as [tʃ]. Affricates, although often associated with the stop series, are not considered in this paper.

[3] Such solutions have already been postulated. For example, L. Biedrzycki (1971 : 136) interprets phonologically the vowel in *more* as a sequence of two identical elements (oo).

segments, although acoustically not recognizable (lack of differentiating feature), is possible from the structural point of view.[1]

Coming back to the suggestion given at the beginning of this paper (aspiration should be looked for in the analysis of segments that follow the plosive) let us present the above discussed interpretation by means of a diagram:



Both in *pill* and in *play* aspiration manifests itself as a sequence of two segments α and β. However, formerly α meant a strong puff of air, in *play* it means a devoiced consonantal segment. Thus there are two types of α which we shall distinguish as α_1 (the former meaning of α) and α_2 (the latter meaning). β in both cases manifests itself as a devoiced segment being either vocalic (in *pill*) or consonantal (in *play*).

The distinction of two types of α consequently leads to the distinction of two types of aspiration which will be termed released (the one having α_1) and unreleased (the one having α_2).

The released aspiration, i.e. having the structure $\alpha_1+\beta$, occurs when a plosive is followed by a vowel in a stressed syllable. In other words, in *pertain*, for example, [t] will be accompanied by aspiration and [p] not, since it appears in an unstressed syllable. A restriction must be made here: there is no aspiration if a plosive is preceded by [s] in the same word (Gimson 1966 : 146). Thus *that stuff* differs from *that's tough* by the absence of aspiration in the first phrase and its presence in the second (Jassem 1964 : 54, cf. also Gimson's explanation of the difference by means of juncture 1966 : 276).

[s] and other consonants preceding a plosive in another syllable can only reduce aspiration to some extent but they do not obliterate it. This relative reduction of aspiration manifests itself in the possible shortening of the α and β segments. Gimson quotes *push, past, brief, talking, fresh coat* (147) as having a certain reduction of aspiration in the articulation of the plosives.

The released aspiration can also occur if a tense plosive is final in a stressed

---

[1] It would be interesting to check experimentally whether native speakers of English can distinguish one voiceless segment from the theoretically postulated sequence of two voiceless segments, that is to examine if the difference in length is clearly distinguishable. If it were proved to be true, then the above suggested solution would be acceptable not only structurally but also acoustically.

[2] Note, however, that in colloquial RP word-final plosives can be "non-released", i.e. can have no offglide (Gimson, 151).

syllable (cf. Jassem 1971 : 173, 178, 186). However, here, unlike in the syllable initial position, the requirement is that a pause must follow. Thus, aspiration appears in *hope, hat, lack*[5], but not in *the hopes, the hat is nice, his lack of courage* since the plosives are followed by other sounds and there is no pause. The preceding sounds have no bearing on aspiration, i.e. the plosive can be preceded by a vowel (as above) or by a consonant as in *help, belt*. The segmental analysis of the aspiration in word-final position shows the presence of α and β which manifests itself here as a pause (a pause being a period of voicelessness).

The unreleased aspiration (the structure $\alpha_2+\beta$) as has been mentioned above, occurs when a tense plosive not preceded by [s] is followed by [l r j w] in a stressed syllable (on the status of [tr] cf. note 2 below). It is called "unreleased" because it appears not as an audible puff of air but as a devoiced consonantal segment[6].

It should be noticed that when plosives are not accompanied by aspiration they behave like all other tense consonants, i.e., they devoice the following [l r j w] only partially.

Compare: *split, slow* — where [l] is half-devoiced (Jassem 1971 : 222)
apron, free — where [r] is half-devoiced (Jassem 1971 : 259)
student, few — where [j] is half-devoiced (Jassem 1971 : 261)
square, swim — where [w] is half-devoiced (Gimson 1966 : 211)

This partial devoicing is, therefore, a general property of all tense unaspirated consonants in English.

As far as Polish is concerned it is generally agreed that aspiration does not occur (cf., for example Wierzchowska 1965 : 110, Biedrzycki 1972 : 27). This is true of normal unemphatic speech. Doroszewski (1952 : 43) explains that the presence of aspiration in some regional dialects of Polish in Northern and Western Poland is due to the influence of German. In the standard Polish accent — the cultural Polish of Warsaw (Warszawska Polszczyzna Kulturalna), which is considered in this paper, aspiration is possible only under special circumstances: in hesitative speech, e.g. *t...ak* (Dłuska 1950 : 80) or for emphasis (Doroszewski, 43). From the observations of every day speech, it seems that the introduction of aspiration for emphasis is quite common, for example in interjections: *panie!, tyle pracy, taki nudny*[7]. It is to be noted, however, that this aspiration can occur only with voiceless plosives followed by a vowel initially in a stressed syllable. This represents the released type of aspiration. Unreleased aspiration is irrelevant here since Polish has very common and quite regular clusters of voiceless plosives with other voiceless consonants, e.g. /ps/ *psycholog*, /px/ *pchnąć*, /pɕ/ *psiarnia*.

---

[6] The transference of the α_1 into the α_2 might be due to certain articulatory properties of the following consonants. For instance, with [l] we have a latteral escape (cf. Gimson, 153), with [r] — retroflexion which forms some obstacle in the mouth passage and, consequently, a stronge explosion of air (puff) is not possible. The energy is not used for the puff but for devoicing.

[7] Teaching practice shows that Poles have no difficulty in acquiring aspiration while learning English. However, what they find difficult to do is to change the place of articula-

Finally, a word should be said about the status of aspiration. Aspiration in English should be understood as a certain feature concomitant with the articulation of tense plosives in some contexts and extending over two voiceless segments. It is a phonetic feature usually non-relevant phonologically[8]. It plays the same role in English as the feature [-voice] which, although characteristic of the tense plosives, is not distinctive phonologically (cf. Jakobson 1965 : 38).

Concluding the paper, it seems necessary to sum up the solutions which have been suggested:

(1) aspiration is structurally a sequence of two segments: α and β, the former manifesting itself either as a strong explosion of air (puff) or as a devoiced consonantal segment and the latter being always a devoiced segment (vocalic or consonantal);

(2) in English only a complete devoicing of the consonant following the tense plosive denotes aspiration[9], a partial devoicing should not be associated with aspiration but it should be rather understood as a general property of all tense plosives;

(3) the English unaspirated plosives may have variants depending on whether voice sets in the offglide phase (e.g. *spill*) or after it (for example, probably in the [p] of *polite* which Gimson, (1966 : 148), describes as weakly aspirated and which in this paper is assigned to the unaspirated series on the basis of the assumption that it differs from the traditional "completely unaspirated" by voicelessness in the offglide phase).

As is evident from the references, the analysis of aspiration done in this paper is primarily based on the findings of Wiktor Jassem (1964 and 1971) and A. C. Gimson (1966). However, some of the solutions and generalizations have been reached by purely theoretical considerations and their validity should be confirmed experimentally.

---

tion for instance, while imitating the English [t] in *time*. This confirms the statement that aspiration can appear in Polish though its occurrence is limited to some special cases.

[8] Some authors, for example Gimson (1966 : 148), say that aspiration can be phonologically distinctive in the word-initial plosives where it helps to distinguish the pairs *pin/bin*, *team/deem*, *come/gum*. It seems better, however, to keep to the Jakobsonian distinction [±tense] (1965:38) since the occurrence of this feature is not limited to only some positions of plosive in a word.

[9] It is also the belief of Gimson (cf. 154, 156, 159) but his analysis is not segmental.

REFERENCES

Abercrombie, D. 1965. *Elements of general phonetics*. Edinburgh: University Press.

Biedrzycki, L. 1971. *Analiza fonologiczna polskich i angielskich spółgłosek nosowych i samogłosek*. Unpublished Ph. D. dissertation. University of Warsaw.

Biedrzycki, L. 1972. *Polnische Aussprache mit einer Langspielplatte*. Warszawa: Wiedza Powszechna.

Chomsky, N. and M. Halle. 1968. *The sound pattern of English*. N. York, Evanston, and London: Harper and Row.

Dłuska, M. 1950. *Fonetyka polska*. Kraków: Wydawnictwo Studium Słowiańskiego UJ.

Doroszewski, W. 1952. *Podstawy gramatyki polskiej*. Warszawa: PWN.

Gimson, A. C. 1966. *An introduction to the pronunciation of English*. First published 1962. London: E. Arnold Publishers Ltd.

Jakobson, R. C. Gunnar, M. Fant, M. Halle. 1965. *Preliminaries to speech analysis*. 6th printing. Cambridge, Mass: M.I.T. Press.

Jassem, W. 1964. *Fonetyka języka angielskiego*. 2nd ed. Warszawa: PWN.

Jassem, W. 1971. *Podręcznik wymowy angielskiej*. 2nd ed. Warszawa: PWN.

Jones, D. 1956. *An outline of English phonetics*. 8th ed. Cambridge: Heffer.

Wierzchowska, B. 1965. *Wymowa polska*. Warszawa: PZWS.

NASALITY IN POLISH AND ENGLISH

EDMUND GUSSMANN

Maria Curie-Sklodowska University, Lublin

If "nasal sounds are pronounced with a lowered velum which allows the air to escape through the nose" and "nonnasal sounds are produced with a raised velum so that the air from the lungs can escape only through the mouth" (Chomsky and Halle 1968 : 310) then Polish and English are clearly seen to differ considerably in the degree to which they exploit the feature /+nasal/. The most conspicuous difference consists in the phonetic inventory of nasal sounds used in the two languages. English is usually said to have three independent nasal consonants bilabial, alveolar and velar (cf.: *ram-ran-rang*), each with a few variants determined by the phonetic context (Gimson 1962 : : 188). The Polish inventory of nasal consonants contains four nasal segments: bilabial and dental, both of which can be palatalized (cf.: *maly-mialy*, *pan-pań*). These consonants again have variants in various contexts. Apart from nasal consonants several nasal vowels also appear in Polish (Doroszewski 1962 : 94). In addition Polish is claimed to possess nasal glides and even nasal diphthongs (Biedrzycki 1965, 1972).

The present paper will attempt to examine the phenomenon of nasality in the two languages. We shall first discuss the phonetics of nasal sounds in Polish and English, and this will be followed by a brief survey of some of the previous works on nasality in Polish. Following this we shall present a short sketch of the clusters in which nasal sounds appear. After that we shall concentrate on some phonological processes where nasal sounds are involved in an attempt to see whether and to what extent, nasality can be predicted. It will be seen that Polish and English are considerably closer in their phonological exploitation of nasality than the phonetic consideration might suggest, i.e., in spite of the vast phonetic differences, the underlying pattern with respect to nasality shows remarkable similarities. Towards that purpose we shall adopt the view of phonology propounded by generative grammar (Chomsky and Halle 1968; Postal 1968) with one proviso: no consistent attempt will be made to capture the phonological processes by means of fully formal rules. Chomsky and Halle (1968) presented a reasonably full picture of English phonology, but our understanding of the workings of Polish phonology is very slight (Lightner 1963, Gladney 1968), and thus any attempt to formalize a limited fragment of it would be premature. In all fairness it should be added that a considerable amount of work on Polish in general and on nasality in particular has been carried out within the framework of autonomous phonemics (e.g.: Biedrzycki, Jassem, Zagórska-Brooks) and we shall comment on theses works briefly as we proceed.

The phonetic facts concerning the basic nasals and the distribution of their variants will be summarized now.

The bilabial nasal [m] occurs initially, medially and finally in both languages, e.g.: *mouse, make — most, masło*; *summer, lemon — pomarańcza, wymowa*; *lamb, come — dom, brom*. [m] in both Polish and English can sometimes be devoiced though the respective environments are different — in English after the initial [s], e.g.: *smoke, smith*, while in Polish in word-final position after a voiceless consonant, e.g.: *pism, rytm*. Both languages show labio-dental variants before a following labio-dental consonant, e.g. *comfort, emphasis — tramwaj, emfaza*. In English [m] can sometimes be syllabic as in *rythm* and *bottom*, a phenomenon which does not exist in Polish. On the other hand, Polish exhibits geminate nasals, e.g.: *gamma* vs. *gama* while in English this can be seen only across word boundaries, e.g.: *home-made, Tom must*.

The basic variant of [n] is alveolar in English and dental in Polish. [n] can occupy word initial, medial or final position, e.g.: *never, knit — nosowy, nerka*; *innate, wonder — struna, sinus*; *gone, learn — plon, kran*. As in the case of [m], [n] can be partially devoiced after the initial [s] in English, e.g.: *sneak, snake* and after a voiceless consonant in Polish, e.g.: *piosnka*. In English [n] can become labio-dental before a following labio-dental thus overlapping with the labio-dental [m], e.g.: *infant, infernal*; This phenomenon can also be observed in the Polish *informacja*. The main Polish variant of [n] appears in English before a dental consonant, e.g.: *month, tenth*, while the main English variant of [n] appears in Polish before a post-alveolar consonant, e.g.: *tęcza, pączek*. In English there exists a post-alveolar variant of [n], e.g.: *control, country*, not recorded in Polish. As in the case of [m], geminates appear within words in Polish, e.g.: *ranny* vs. *rany*, and across word boundaries in English, e.g.: *ten names*. Furthermore [n] can be syllabic in English, e.g.: *sudden, vision*.

The velar nasal [ŋ] in Polish is fully determined by the context, in that it can appear only before a velar plosive [k, g], e.g.: *Kongo, tango, ręka, drąg* and it is furthermore subject to some dialectal variation (Klemensiewicz 1962 : 37). In the dialect under description it does not appear in words like *łazienka, okienko, wanierka*. Details of the distribution of the velar nasal will be discussed below. Subject to the same placement as the velar nasal is the post-palatal nasal appearing in such words as *strąki, węgiel*. Thus the palatal variant does not appear in *łazienki, wanienki, sukienki* etc.

The velar nasal in English is to a lesser extent determined by the phonetic context. Although it is impossible initially, it may occur medially before consonants, e.g.: *England, anchor, anxiety* and before a vowel, e.g.: *Birmingham*. It also occurs finally, e.g.: *tongue, among*. Owing to its skewed distribution, the velar nasal is never geminated either in Polish or in English. It may, however, occasionally be syllabic in English, e.g.: *taken*.

Two palatal nasals which occur only in Polish are the bilabial nasal [ḿ] and the pre-palatal nasal [ń]. Neither of them can appear before the front retracted vowel [i]. Furthermore [ḿ] can occur only in word initial or medial position before a vowel, e.g.: *miał, miotła, pomiot, wymię, łom* vs. *łomie, Niemiec* vs. *Niemca*. [ń] can occur in all positions, e.g.: *nigdy, nieść, konie, bańka, krtań, skroń*. It is partially devoiced in word final position when following a voiceless consonant, e.g.: *pieśń, wapń*. The palatal consonant [ń] is usually pronounced as a nasal semi-vowel [j̃] in the pre-spirantal position (Benni 1959 : 50, Wierzchowska 1971 : 145), e.g.: *koński, tańszy, chiński* etc.

This terminates our survey of the phonetics of the nasal consonants in Polish and English. It has been observed that [m] and [n] occur freely in both languages while [ŋ] shows a restricted distribution. [ḿ] and [ń] are specifically Polish and have no direct equivalents in English. All sounds have variants which result mostly from assimilatory phonetic processes that are in part different in the two languages. Additionally, English nasals can be syllabic before word boundaries after a consonant. In Polish [m] and [n] can occur as geminates in word medial position while in English a similar process can exist only across word boundaries.

Polish is said to possess six nasal vowels [ɔ̃ ɛ̃ ã ĩ ɨ̃ ũ] (Wierzchowska 1971 : : 136, Benni 1959 : 37, Doroszewski 1962 : 92). Generally speaking, nasal vowels appear, if at all, only before spirants or in word final position. The latter case is true of [ɔ̃] and [ɛ̃] only. There are no nasal vowels before plosives or affricates and pronunciations [lɛ̃k] or [rɔ̃čka] are considered to be highly artificial. But the situation is far from clear even in the pre-spirantal and final position. The traditional view that they are nasal vowels (Szober 1969 : 10, Klemensiewicz 1962 : 37) has long been observed to be inadequate. Benni (1959 : 36), Jassem (1951 : 97), Doroszewski (1962 : 90), Wierzchowska (1971 : : 135) and others agree that the so-called nasal vowels are in fact of diphthongal nature, where the traditional nasal vowel is denasalized and a nasal back glide developes. Pure vowels and non-nasal diphthongs are heard in colloquial speech but these are considered incorrect pronunciation (Wierzchowska 1971 : 139, 141).

A similar view is taken by Biedrzycki /1963 : 35 ff/ who transcribes the traditional nasal [ɛ̃] and [ɔ̃] as [ɛ̃w̃] and [ɔ̃w̃]. Two things should be noted about this transcription: in the first place it is not doubtful whether nasalization should be marked over both elements of the diphthong. Biedrzycki insists on marking nasalisation in every case where a nasal follows a vowel, e.g.: *dom* [dɔ̃m], *sęp* [sɛ̃mp], *pan* [pãn] etc. While it is perhaps possible to admit that some degree of nasalization might be detected in such cases, it is still not obvious whether a phonetic transcription noting such details is anything more than an exercise in phonetic extravagance[1]. The degree of nasalization, assuming that nasalization can be heard there, is negligible and in what follows we shall disregard it. Biedrzycki did it himself in a recent book (1972) where vowels before consonants are unmarked for nasality and it is only the glide that possesses nasality in the diphthongs, e.g.: *dom* [dɔm], *kęs* [kɛw̃s], *są* [sɔw̃] etc.

Another transcription problem that requires some comment is the use of the symbol [w̃] to designate the back nasal glide. The difference between the last segment of *są* [sɔw̃] and the first of *łatwo* [watfo] is not only the presence of nasality in the former and its absence in the latter but, above all, it is the difference between a glide and a sonorant[2]. Biedrzycki also notes the difference although he ascribes it to the absence of lip rounding in the nasal diphthong: "Die nasalen Diphthonge (...) unterscheiden sich aber von den oralen Diphthongen (...) erstens durch eine charakteristische starke Nasalität des zweiten Elements (...), zweitens dadurch, dass die Lippen beim [w̃] nicht gerundet werden". (Biedrzycki 1972 : 42)[3].

The conclusion that [ɔw] and [ɔw̃] differ not only by the presence of nasality in the second element of the nasal diphthong contradicts Zagórska-Brooks' experimental findings (1968). She undertook to find out by means of acoustic analysis and a listening test whether word final *-ą* and *-ął* are homophonous in e.g.: *ciągną — ciągnął*. Here findings indicate that this is indeed the case, i.e., that speakers of Polish pronounce words like *szepną — szepnął* in the same way. Not being qualified in accoustic phonetics we have nothing to say about this part of her work. We merely wish to point out that the way the listening test was conducted vitiates the validity of the conclusions. 20 minimal pair sentences were made up and recorded by two native speakers. These sentences were played to 8 listeners who were asked to underline the subject of the sentence (either *he* or *they*). Thus there were 320 choices for each speaker. On the basis of statistic considerations it was decided that if the number of incorrect answers was 145 or more it could be concluded that the sounds were not different. The number of incorrect answers in the case of the first speaker was 152 and of the second speaker — 146 (Zagórska-Brooks 1968 : 37 - 39). This led Zagórska-Brooks to the conclusion that speakers of Polish could not hear the difference between word final *-ą* and *-ął*, in other words that no such difference exists. A look at the minimal pair sentences suggests that these results must be taken with caution. Almost all minimal pairs present not only the suspected phonetic contrast but also a grammatical one, viz. that of the 3rd person plural future tense and 3rd person singular past, e.g.:

---

[1] In cases like these, the traditional phonetic transcription is at its worst. Short of some enormous proliferation of symbols, there seems to be no possibility of recording fine phonetic details involving not only different features but also degrees of their exploitation. If one decides to transcribe *dom* as [dɔ̃m] then one has to reject the traditional transcription of e.g. French *bon* as [bɔ̃] and invent a new symbol for the vowel. This would naturally result in a new phonetic alphabet for every language.

It should be added that most of the standard textbooks of Polish phonetics do not mark nasalization in such cases (but cf. Benni 1959: 58 - 9).

[2] A similar situation obtains in English where the last segment in *how* and the first in *wise* are clearly not identical phonetically, although some transcriptions (Chomsky and Halle 1968) do not mark the distinction.

[3] The present author, in contradistinction to Biedrzycki, does not consider combinations of vowels with non-nasal semivowels to be diphthongs in Polish.

19. *W południe zakrzątną się kolo domu.* "At noon they will get busy around the house".
20. *W południe zakrzątnął się kolo domu.* "At noon he got busy around the house".

In a number of these sentences, the past tense would normally be expected while the future tense sounds odd, e.g.: *Na wojnie zginą dzielnie* "They will die bravely in war" vs. *Na wojnie zginął dzielnie* "He died bravely at war". The latter sentence is almost a stock-phrase while the former is somewhat surprising (one might expect to find it in some unusual context). Consequently it is not difficult to predict, although Zagórska-Brooks presents no details, that the pronoun *he* was more often "heard" than *they*. In other words the test did not guarantee that the choice the listeners made was dictated by what they heard only and not by some extra-phonetic factors. Thus the task Zagórska-Brooks set herself, i.e. proving the homophony of word-final *-ą* and *-ął*, cannot be viewed accomplished.

As noted above, nasality, in particular in word final position, disappears in colloquial speech. This is more characteristic of [ɛ̃w] than of [ɔ̃w] (cf. Wierzchowska 1971 : 141) — thus one can safely say [idɛ] for [idɛ̃] or [idɛw̃] while [idɔ] for [idɔ̃] or [idɔw̃] would be considered either uneducated or dialectal.

The status of other nasal sounds, i.e. [ã ũ ɪ̃ ɨ̃] is in some respects similar to that of [ɔ̃ ɛ̃]. It should be noted in the first place that these nasal vowels appear exclusively in pre-spirantal position and exclusively in words of foreign origin. They can be pronounced either as pure vowels followed by nasal consonants, i.e. [an um im] etc. or as nasal diphthongs, i.e., [aw̃, uw̃, iw̃...] with the nasal consonant dropped out. Thus we get (Benni 1959 : 37):

[aN] or [aw̃] *szansa, awans, transport*
[iN] or [iw̃] *winszować, instytut*
[iN] or [iw̃] *rynsztok, czynsz*
[uN] or [uw̃] *triumf, munsztuk, kunszt*

The vowels [ε̃] and [ɔ̃] with the diphthongal pronunciation coalesce with diphthongs in native words giving [εw̃] and [ɔw]

[εN] or [εw̃] *sensacja, benzyna*
[ɔN] or [ɔw̃] *konflikt, konsul.*

Needless to say, the appearance of nasal glides is completely predictable by rule (Gladney 1968 : 115 ff), that is the palatal nasal glide [j̃] will derive from a palatal nasal consonant [ń] (Gladney's rule 12) while the back nasal glide [w̃] will derive basically from a dental nasal [n] (Gladney's rule 14). These may be called late phonetic rules in that they are ordered towards the end of the phonological component or, in any case, after the major phonological rules of the language have applied. To say that some rules are ordered late in the grammar means that they are added for the sake of phonetic accuracy and in no way do they affect the major phonological processes of the language, its "sound pattern". To take an example, Gladney's rule 12 will convert a palatal nasal into a palatal glide before a continuant[4]. The existence of the glide changes very little within the phonology for although we get [j̃] in *koński*, [ń] still remains in e.g. *konia* and we have to account for the [ń—n] alternation:

koński — konia — konno
młyński — młynie — młyn.

Thus the existence of low-level rules adds a little to the complexity of the grammar without affecting its core.

Here we seem to have a good point of departure for a discussion of some general issues in phonological theory. We shall set it, not altogether inappropriately, within Biedrzycki's analysis of nasality in Polish (Biedrzycki 1963). Embedding his discussion in the framework of autonomous phonemics, Biedrzycki posits four nasal phonemes for Polish /m/, /n/, /ɲ/, /ŋ/ each with a number of variants (allophones) whose distribution is determined by the phonetic context. The analysis is based on principles which today seem totally unacceptable, viz.: a) insistence on the strong version of the bi-uniqueness condition („jeden dźwięk nie może należeć do dwóch fonemów" p. 32), b) rejection of the relevance of morphological criteria to phonology („Oczywiście nie zamierzamy kierować się dbałością o symetrię morfologicznego kształtu języka przy podejmowaniu ostatecznej decyzji w rozstrzyganiu tego czysto fonologicznego problemu" p. 32)[5], c) rejection of morphological boundaries in phonological analysis („W niniejszej pracy przyjęliśmy jednak za Jassemem, iż granica morfologiczna nie jest w języku polskim istotna dla klasyfikacji głosek według fonemów", p. 41)[6], d) explaining arbitrariness of solutions by reference to the fact that the language is in a process of change (p. 34) (cf. on this point, Chomsky and Halle 1965:131).

---

[4] The rule is of interest in itself, as it involves the change of the feature /conson/, i.e. one which is very high in feature hierarchy.

To appreciate the unacceptability of such conditions, let us consider some facts about nasality in Polish in order to see what Biedrzycki's analysis makes of them: the nasals in the two sets of words are different in every word: *pęd* (dental), *pędzę* (alveolar), *pędzi* (palatal), *ręka* (velar), *ręki* (post-palatal), *ręce* (alveolar).

The nasals of *pęd* — *pędzę* are assigned to the phoneme /n/ (Biedrzycki's allophonic statements 6. 3. II. A. d. and 6. 3. II. B. a), those of *ręka* — *ręki* to /ŋ/ (6. 5. IV. B. and 6. 5. IV. C.) and that of *pędzi* to /ɲ/ (6. 4. III. A. d.). Although Biedrzycki does not say it, what is at stake here is clearly a case of assimilation, i.e., a nasal allophone assimilates to the following consonant in the place of articulation. But precisely the same thing happens on the morphological level where the nasal phoneme /n/ of *ręce*, *pęd* assimilates to the following consonant to produce a velar and platal nasal phonemes /ŋ/ and /ɲ/. This is again a case of assimilation to the following consonant in the place of articulation. Thus an analysis like Biedrzycki's makes it necessary to state the same regularity at least twice or, to put it in other words, makes it impossible to give one general rule for what clearly is one process[7]. It is, among others, for reasons like this that contemporary linguistics has rejected the term "phoneme" (for a host of other reasons see Chomsky 1964, Postal 1968). Although it is at present not immediately obvious whether some intermediate level between the phonological and phonetic ones may not prove necessary (cf. Fudge 1972), what is definitely obvious it that no such level can be meaningful if worked out on superficial phonetic contrasts and based on principles such as bi-uniqueness and invariance. In what follows we shall have nothing to say about the nasal phonemes of Polish or English but we shall try to see what general processes govern nasality in the two languages. We shall start by reviewing the major types of consonantal clusters involving nasals. The survey presented below mentions the most typical clusters and is of course not intended as a complete study of clustering in either Polish or English.

---

[5] It is interesting to observe that as long ago as 1953 Panov (1970) brilliantly defended the necessity of recognizing the morphological criterion, albeit to a limited extent, in any phonological work. The arguments Panov used provide enough evidence to show that no phonology is possible without constant reference to morphology.

[6] This is not carried out consistently. Biedrzycki refers to syllable boundaries in order to account for the longer variant of [m] in *mam je* as opposed to *mamie*. Were he fully consistent, he would have to posit yet another nasal phoneme, viz. /m:/. Likewise Biedrzycki nevers says what he finds objectionable about the minimal pair *rany* — *ranny* which, if taken seriously, would point to one more nasal phoneme, viz. /n:/.

[7] The present author claims no originality as the above discussion parallels closely Halle's celebrated argument showing the linguistic irrelevance of the term "phoneme". See also Harris (1969: 14).

Initial clusters consisting of two elements, one of which is a nasal, present an array of possibilities in Polish as contrasted with the paucity of similar clusters in English. Thus in Polish a plosive, a fricative or a liquid may be followed or preceded by a nasal, an affricate may be followed and a semi-vowel preceded by a nasal, e.g.: *dno*, *gmach*; *chmura*, *śnieg*; *mchu*, *msza*; *lnu*, *lniany*; *mleko*, *mruczeć*; *ćma*, *mlodość*[8]; *mnie*, *mnogość* Against this range of possibilities there is basically only one cluster type in English, viz. /s/+a nasal, e.g.: *smoke*, *snake*, *smith*. Apart from this, there is a doubtful case of two nasals and of a nasal followed by a glide[9].

As is well-known, there are no initial clusters consisting of four members in English and no nasal can appear in triple clusters (Cygan 1971: 64 ff). Conversely, Polish offers again a variety of possibilities, some of which can be exemplified as follows: *tknąć*, *grzmot*, *krnąbrny*, *sknera*, *czknąć*, *mgnienie*, *mglisty*, *mgla*, *mszczenie*, *lśnić*, *mścić* etc.

The number of initial clusters would still go up if account were taken of clusters resulting from various morphological processes that add prefixes, that is to say of clusters that contain word and morpheme boundaries, e.g.: *drgnąć*, *drgnienie*.

Final consonantal clusters appear to be quite numerous in English (Cygan 1971: 86 - 87) and a great number of them contain a nasal segment. A closer inspection reveals, however, that a considerable part of the clusters arises across morpheme boundaries. Thus, if it is true to say that we get a [ŋd] cluster phonetically, e.g. *hanged* or [ntθs], e.g. *thousandths*, it is equally true to say, disregarding the inaudible word boundaries, that we get a seven member [mpftskr] cluster medially, e.g. *triumphed screaming*. Once morpheme boundaries are taken into account, the number of final consonantal clusters decreases radically and we have basically [nd], e.g.: *end*, *sand*, [nt] e.g.: *cant*, *ant*, [ŋ*k*], e.g.: *sink*, *bank*, [ns], e.g.: *tense*, *immense*, [mp], e.g.: *imp*, *lamp*, [mf], e.g.: *nymph*, *triumph*, [nč], e.g.: *lunch*, *hunch*, [nǰ], e. g.: *plunge*, *strange*, [lm], e.g.: *elm*, *film*, [ln], e.g. *kiln*. Most of the other three or four member clusters result mechanically through the addition of appropriate suffixes and endings. It will furthermore be noted that the nasal is, in a number of cases, homorganic with the following obstruent (see below). The Polish final clusters are richer in that we get combinations of plosives, fricatives, affricates with a preceding or following nasal, e.g.: *wapń*, *hańb*; *pasm*, *gzyms*; *wiedźm*, *ksiądz*, liquids and semivowels plus nasals, e.g.: *palm*, *pokarm*, *ujm* and double nasals, e.g.: *hymn*, very much like in the initial position. Three or four member clusters containing nasals are rare, e.g.: *asumpt*, *pilśń*, *kunszt*, *klamstw*, *przekleństw*.

---

[8] This is doubtful as the phonetic semivowel [w] is a liquid phonologically, cf.: *maly* — *mali*.

[9] The cases are doubtful because *mnemonic* has an alternative pronunciation with a single nasal and this word is felt to be non-English in any case. The nasal plus glide cluster is suspect because it is derived from an underlying nasal followed by a vowel (Chomsky and Halle 1968: 192 ff).

We may deal with the difficult problem of medial clusters very briefly by adopting the principle developed by Cygan (1971: 111) and dividing them into two groups: 1) clusters which conform to the initial or final type, 2) clusters which do not appear initially or finally. Disregarding again clusters arising across boundaries, it is easily noticeable that Polish medial clusters containing nasals in the majority of cases conform to the initial or final type while English clusters diverge from them by adding new ones (Cygan 1971:111): a) plosive+nasal, e.g.: *hypnotist*, *atmosphere*, *acme*, *technical*, *pigmy*, *signal*, *kidney*; b) fricative+nasal, e.g.: *Daphne*, *etnography*; c) nasal+nasal, e.g.: *gymnasium*, *enmity*.

Larger clusters also admit new combinations of sounds, e.g.: *remonstrance*, *emblem*, *anxious*.

Turning to phonology now, we shall try to see whether and to what extent the existence of separate nasals can be predicted on independent grounds.

Firstly, we shall assume without further justification that the socalled nasal vowels in Polish will not appear in phonological representations but will be derived from an underlying mid vowel+nasal in some environments (Lightner's rule 25) with a subsequent deletion of pre-spirantal nasal consonants. Likewise, nasal vowels in some dialects of English will be derived in a similar manner (Chomsky 1964: 82).

Nasal assimilation seems operative in both languages and appropriate rules for Polish have been posited by Lightner (1963: 225) and Gladney (1968: 117) and for English by Chomsky (1965: 176), Chomsky and Halle (1968: 85, 209, 222, 234) and Cygan (1971: 96). Taking Polish as the starting point, consider the following sets of words:

I. a. *posępny*, *bębnić*, *stąpać*, *rąbać*, *zastępstwo*
   b. *rząd*, *kręty*, *polędwica*, *żądło*, *święty*, *piętrzyć*
   c. *ręczny*, *tęcza*, *mączka*, *pączek*, *sączek*
   d. *pięć*, *lędźwie*, *kręci*, *chęć*, *brnąć*
   e. *ręka*, *węgla*, *pąk*, *kręgu*; *miękka*, *drąga*

f. *ręki, węgiel, drągi, miękki, kręgi*
g. *bank, Ankara, tango, hungarystyka, angina*

II. *pogaństwo, mknąć, zamsz, zemsta, gzyms, hańba, chamski, mdlić, omdlały, mgła, mścić, branka, mrzonka, okienko, studzienka, sukienka.*

All words in group I exhibit nasal assimilation and this is not true of the group II words. Lightner's rule of assimilation reads:

$$[+\text{nasal}] \rightarrow \begin{bmatrix} \alpha\ \text{grave} \\ \beta\ \text{comp} \\ \gamma\ \text{sharp} \end{bmatrix} \quad \text{in env.} \begin{bmatrix} +\text{obstr} \\ \alpha\ \text{grave} \\ \beta\ \text{comp} \\ \gamma\ \text{sharp} \end{bmatrix}$$

Gladney's rule is slightly different:

$$[+\text{nasal}] \rightarrow \begin{bmatrix} \alpha\ \text{comp} \\ \beta\ \text{grave} \end{bmatrix} / \underline{\quad\quad} + \begin{bmatrix} -\text{voc} \\ +\text{cons} \\ \alpha\ \text{comp} \\ \beta\ \text{grave} \\ -\text{cont} \end{bmatrix}$$

In view of the examples given above both rules are seen to be inadequate for they would either assimilate the clusters in group II or, if the presence of morpheme boundary in Gladney's rule were inisted upon, they would fail in a number of cases in group I words. The rules might be saved, perhaps, if we were to claim that the environments are met at the point in the derivation where the rule applies. Such a claim, although probably true in some cases, would lead to a number of representations motivated solely by their applicability to the rule. Instead of pursuing this line, we propose a different rule of nasal assimilation for Polish, viz.:

$$[+\text{nasal}] \rightarrow \begin{bmatrix} \alpha\ \text{coron} \\ \beta\ \text{anter} \\ \gamma\ \text{distr} \\ \delta\ \text{back} \end{bmatrix} / \left\{ \begin{matrix} \begin{bmatrix} \text{V} \\ -\text{high} \\ -\text{low} \end{bmatrix} \\ [+\text{foreign}] \end{matrix} \right. \underline{\quad\quad} \begin{bmatrix} \alpha\ \text{coron} \\ \beta\ \text{anter} \\ \gamma\ \text{distr} \\ \delta\ \text{back} \\ -\text{contin} \end{bmatrix}$$

Condition: does not apply
across morpheme boundaries

This rule, while assimilating nasals in group I, will not affect them in group II. What cases like *zemsta, zemścić* show (cf.: *mścić, pomścić*) is that the rule cannot work across morpheme boundaries /pronunciations/ [zɛ̃sta] or [zɛw̃sta] are quite impossible. The feature /distributed/ accounts for the alveolar nasals in Ic, the post-palatal nasal in If[10], as well as the labio-dental quality of the nasal in e.g.: *tramwaj*, *informacja*. The subrule restricted to words of foreign origin will account for the velar nasal when preceded by any vowel. The nasal before a velar plosive deserves some further comment. As noted above the rule of nasal assimilation accounts for the appearance of the velar nasal in Ie, If and Ig. At the same time the non-velar quality of the nasal in words like *słomka*, *łazienka*, *wronka*, *żonka* etc. is automatically predicted, for, it will be recalled, the nasal assimilation rule cannot operate across morpheme boundaries. We get *słomka* because of *słoma*, *wronka* because of *wrona* etc.

---

[10] We thus take the difference between the velar nasal and the postpalatal nasal to consist in that the former is /−distrib/ while the latter is /+distrib/.

The English rule of nasal assimilation has been noted in several places. Chomsky's original rule (1965: 176)

$$[+\text{nasal}] \rightarrow \begin{bmatrix} \alpha\ \text{grave} \\ \\ \beta\ \text{compact} \end{bmatrix} \Big/ \text{—} \begin{bmatrix} +\text{consonantal} \\ \alpha\ \text{grave} \\ \beta\ \text{compact} \end{bmatrix}$$

has been shown by Cygan (1971: 96) to be inadequate as it would turn nasals before palatals into palatal nasals. Consequently Cygan suggested that the rule should be split into two:

$$\text{(a)}\ [+\text{nasal}] \rightarrow \begin{bmatrix} +\text{grave} \\ \\ \alpha\ \text{compact} \end{bmatrix} \Big/ \text{—} \begin{bmatrix} +\text{consonantal} \\ +\text{grave} \\ \alpha\ \text{compact} \end{bmatrix}$$

$$\text{(b)}\ [+\text{nasal}] \rightarrow \begin{bmatrix} -\text{grave} \\ -\text{compact} \end{bmatrix} \Big/ \text{—} \begin{bmatrix} +\text{consonantal} \\ -\text{grave} \end{bmatrix}$$

where (a) would turn nasals into [m] before labials and into [η] before velars while (b) would turn nasals into [n] before dentals and palatals (Cygan 1971: 96).

Cygan's argument is obviously sound and Chomsky's rule must be modified but it still seems possible to express the generalization by means of one rule which must be appropriately complicated to reflect the fact that nasal assimilation is not of general applicability. Following a suggestion of Harris's (1970: 35) nasal assimilation in English can be expressed by imposing the "if — then" conditions on the rule (cf. Harms 1968: 73 ff):

$$[+\text{nasal}] \rightarrow \begin{bmatrix} \alpha\ \text{anter} \\ \delta\ \text{distrib} \\ \beta\ \text{coron} \end{bmatrix} \Big/ \text{—} \begin{bmatrix} \gamma\ \text{anter} \\ \delta\ \text{distrib} \\ \beta\ \text{coron} \end{bmatrix}$$

$$\text{Conditions: if } \beta \neq \gamma, \text{ then } \alpha = + \qquad \beta = \gamma \quad \alpha = \beta$$

This rule, while predicting the appearance of [n] before palato-alveolar obstruents, also accounts for the non-existence of certain clusters in English, namely [mč, mǰ, mš, mž, ŋč, ŋǰ, ŋš, ŋž]. The condition says that if the features for anteriority and coronality in the following obstruent do not coincide, then the nasal must be anterior and it agrees in coronality with the obstruent. As all palato-alveolar obstruents in English are /-anter, +coron/ the nasal must be /+anter, -coron/, i.e. [n].[11] The feature /distributed/ was introduced into the rule to achieve a greater degree of phonetic detail. Without that feature the rule would make no distinction between dental and alveolar nasals (cf.: ***month***, ***tenth*** vs. *man*, *ten*) as well as between bilabial and labio-dental nasals (cf.: ***embed***, ***intend*** vs. *emphasis*, *information*).

Several inadequacies of the rule must be noted:

a) the introduction of the feature /distributed/ is suspect on theoretical grounds as it is not expoited anywhere alse within the phonological rules of English. Introducing a distinctive feature with the sole purpose of accounting for some low-level phenomena is not well-motivated particularly when the phenomena seem to depend on e.g. the tempo of speech as is surely the case with labio-dental nasals in English. One might suggest that integral feature coefficients should be used instead of the feature /distributed/ particularly so as these will have to be used in any case to account for e.g., the post-alveolar nasal in *country*, but the final solution seems to depend on general phonetic considerations (cf. Harris 1970: 36-7). Thus we leave the rule in its present unsatisfactory shape noting that the problem needs special study which would remove arbitrary solutions.

b) nasal assimilation seems to be connected with a few other phenomena, notably stress, tempo of speech and boundaries. Chomsky and Halle (1968 :419) note that the rule of nasal assimilation must be ordered quite late or in any case after rules assigning stress. Thus, they claim, the velar nasal appears when directly following a stressed, vowel, e.g.: *concord*, *congress* as opposed to *concordance*, *congressional*. But clearly the nasal assimilation rule is operative also in pre-stressed position, e.g.: *consume*, *compel*, *commit*, *impose* etc. Furthermore, examples like *institute* — *institutional*, *impregnate* — *impregnation* show that even if nasal assimilation depends on strees this seems valid only for a case when a velar plosive is involved. But the situation is still more complicated, at least in the case of British English where some words with a velar nasal admit a variant with a non-velar nasal (cf. Jones 1967). It must be added that the variant with a velar nasal is given as predominant if stressed but this is by no means generally true (e.g. *congressional* has only one variant, namely with a velar nasal). It might be suggested that the appearance of the appropriate nasal depends upon the tempo of speech. Another possible solution is to preserve the regularity noted by Chomsky and Halle with the proviso that the degree of stress depends upon the tempo (one might expect that stress, in particular non-primary, tends to be weakened in rapid, unguarded speech). Thus we may conclude that a considerable amount of fluctuation between [ŋ] and [n] can be observed which seems to be connected with the existence or non-existence of rules reducing non-primary stress in different styles and tempos of speech[12]. Consequently certain alternations between [ŋ] and [n] could be viewed as cases of free variation.

---

[11] Although it is not obvious how the "if — then" conditions should be evaluated, it still seems preferable to have one rule rather than two when closely related phenomena are involved.

As noted above, the nasal assimilation rule in Polish may not work across word boundaries. The same holds good for English (Fudge 1970 : 85) where most of the apparent exceptions to the rule are simply clusters which arise across boundaries, e.g.: *films, dreamed, hanged, bangs* etc. Appart from the fluctuating forms just mentioned (*income, enocurage*) there are a few genuine exceptions, e.g.: *Thames, clumsy, flimsy, James.* There is one clear case, however, where the above generalization is downright false, namely the negative prefix *in-*, e.g.: *inaccurate, inevitable, inobservant, inconsistent, intolerable, insincere, impossible, immortal, illegal, illogical, irrelevant, irrecognisable* etc. It is difficult to adduce any reasonable argument for positing morpheme boundaries after the prefix; rather the rule seems operative in spite of the existing word boundaries.[13] On the other hand (cf. Fudge 1972: 146) forms like *unpopular* may, but do not have to, be pronounced with either a complete or incomplete assimilation. But we would disagree with Fudge (1972: 146) in treating the two phenomena on a par. Forms like *unpopular* are perfectly regular in the sense that they do not undergo nasal assimilation due to the presence of the word boundary.[14] Forms with incomplete or complete assimilation can be observed in casual or unguarded styles only, which suggests that the nasal assimilation rule would have to be modified for such styles by, say, deleting the word boundary or in some other way (cf. Harris 1969: 15 ff). What remains unexplained is the behaviour of the prefix *in-* which appears exceptional. A possible solution is the use of a minor rule in the sense of Lakoff (1971) and Lightner (1968), which would mark the prefix *in-* as undergoing nasal assimilation in every case.

Nasal assimilation is a major phonological process that helps to predict the appearance of nasal consonants in some contexts, that is to say, no detailed specifications of nasality are needed in the appropriate lexical representations.

---

[12] The importance of recognizing different styles is discussed by Harris (1969: 6 ff).

[13] In the case of a following liquid (*illegible, irrational*) the rule does not assimilate the place of articulation only but all the other features as well. A subsequent rule of cluster simplification (Chomsky and Halle 1968: 46 ff) applies to produce the phonetic form.

[14] "word" and not "morpheme" boundary as Fudge would have it.

The rules predict the occurrence of the velar nasal in Polish completely and, to a limited extent, of all other nasals in both languages. The predictability of nasality, however, is greater than that. Chomsky and Halle claim that the velar nasal in English is completely predictable from phonological representations containing an unspecified nasal followed by a velar voiced plosive, i.e. /Ng/. The rule of nasal assimilation and another one deleting the final /g/ after a nasal produce the desired result, i.e. [ŋ]. Thus [siŋ] is derived by the two rules from underlying /siNg/. In the case of [siŋk] only the nasal assimilation rule will apply leaving the voiceless velar intact.

There are a few problems connected with the rule that must be briefly commented upon. /g/ is apparently dropped after nasals in word-final position remaining in word medial position (Chomsky and Halle 1968 : 85 - 6), e.g. *bring* vs. *mingle* from underlying /briNg/ and /miNgl/. It also drops before certain affixes that carry the # boundary, e.g.: *-ing*, *-er* /agentive/, *-ly* as *bringing*, from /briNg#iNg/, *singer* from /siNg#er/ vs. *linger* from /liNgr/, *finger* from /fiNgr/; also *singly* from /siNgl#ly/ and *singlet* from /siNg#lVt/ vs. *kinglet* from /kiNg#lVt/. The rule of g-deletion does not apply before the affix *-er* of the comparative degree, e.g.: *stronger*, *longer*, *younger*. The appearance of [ŋg] in *anger*, *hunger* and adjectives derived from these is an instance of the same rule, i.e. /g/ does not drop in word medial position. The appropriate phonological representations for these words can be (Chomsky and Halle 1968 : 86): /huNgr/, /æNgr/, /huNgr+y/, /æNgr+y/. But the underlying /Ng/ cluster, although the most common one, is not the only source of phonetic [ŋ]. According to Chomsky and Halle (1968 : 234) in some words it is to be derived from an underlying nasal plus a velar continuant /x/. This is the solution offered for words like *dinghy*, *hangar*, *gingham*, *Birmingham* but its correctness depends upon the recognition of an underlying velar continuant. If the segment is rejected (cf. Hurford 1970 : 21), then the words would probably have to be treated as exceptions[15].

The presence of palatal [ḿ] and [ń] is said to constitute the major difference between the Polish and English inventory of nasals. As was noted in conjunction with the phonetics of Polish nasals, [ḿ] cannot occur before [i], in word-final position and medially before a consonant. Polish phoneticians have usually described the [ḿ] sound as a palatal bilabial nasal followed by a pure vowel and adduced minimal pairs like *mara-miara* (Szober 1962 : 13). It is also admitted that, dialectally, a glide or a diphthong may follow [ḿ] (Doroszewski 1963 : 47, Wierzchowska 1971 : 182). It seems, however, that in present day Polish the presence of a front glide after the palatal

---

[15] In the case of British English *dinghy* and *hangar* would have to be taken out of the list anyway, as the former requires while the latter allows a velar plosive phonetically (Jones 1967).

bilabial nasal is prevailing. In fact, the appearance of a glide is much more general as it follows all labial and labio-dental consonants. The glide is recognized by Biedrzycki (1963, 1972) in his works on Polish pronunciation. In this way, the palatal quality of the bilabial nasal can be seen as contingent on the palatal character of the following segment. We return to a fuller specification of that segment below. [ń] differs from [ḿ] in that it occurs in all positions and also before consonants. Closer inspection reveals, however, that in some contexts it is clearly predictable. One of them is the position before [i] where the nasal is invariably palatal, e.g.: ***nikt, nigdy***. Also before the adjective forming suffix -***sk***- [n] is excluded at the expence of [ń]. Hence we get frequent alternations [n-ń], e.g.: ***pan-pański, Ren-reński, Napoleon-napoleoński, mlyn-mlyński*** etc. A simple rule palatalizing /n/ before /sk/, or most probably /isk/, would account for these alternations. The necessary palatal quality of [m] and [n] before [i], the impossibility of [ḿ] and [ń] before [i] as well as the glide appearing after [ḿ] suggest that the palatal nasals be derived from underlying plain ones in the environment before /i/. This /i/ would be deleted when following [ń] and being followed by another vowel. It would be turned into a glide after [ḿ] before a vowel. Putting all this into informal rules we have

$$\begin{bmatrix}+\text{nasal}\\+\text{anter}\end{bmatrix} \rightarrow \begin{bmatrix}+\text{high}\\-\text{back}\\ \end{bmatrix} \Big/ \;\_\_\_\begin{bmatrix}\text{V}\\+\text{high}\\-\text{back}\end{bmatrix}$$

$$\begin{bmatrix}\text{V}\\+\text{high}\\-\text{back}\end{bmatrix} \rightarrow \left\{\begin{array}{c}\text{Ø} \;/\; \text{ń} - \text{V}\\ [\text{-vocal}] \,/\, \text{ḿ} - \text{V}\end{array}\right.$$

/i/ would also be deleted in other positions by rules needed on independent grounds (cf. Lightner's rule 44).

A rule of nasal deletion eliminates a nasal between two consonants and before the liquids [l, w] (Schenker 1954 : 473), e.g.: *padnę — padlem — padlszy*, which can be expressed as

$$[+\text{nasal}] \rightarrow \text{Ø} \left\{\begin{array}{l}\text{C} - \text{C}\\ \;\;- \left\{\begin{array}{l}\text{l}\\ \text{ł}\end{array}\right.\end{array}\right.$$

This way of handling the palatal character of /m/ and /n/ diverges from earlier treatments (Lightner 1963; Gladney 1968) that take it to be the result of palatalizing nasals by any front vowel (Lightner's rule 17). But, as correctly observed by Gladney (1968 : 112) "for every Polish word displaying a front vowel following a consonant which does not show the effects of rule 17 we must explain why the latter did not apply". The number of words in contemporary Polish displaying [ń] after a nonpalatal consonant is considerable. This would point to the necessity of modifying rule 17 rather than modifying phonological representations of a great number of words. The attempt, made above, may again prove in need of revision within a more comprehensive treatment of Polish phonology.

We shall finally turn to a phenomenon in Polish which has no equivalent in English, viz. the vocalic alternations (basically alternations in backness) in the environment before a nasal plus an obstruent. Consider the following examples: *kląć-klął-klęła*; *kęs-kąsek-zakąska*; *gołąb-gołębie-gołąbek*; *stąpać-wstępny*; *część-cząstka*; *błąd-błędny*; *pamięć-pamiętny* etc. An attempt will be made below to show that the alternations can be predicted with a fair degree of accuracy. Our question is: under what conditions do the vocalic alternations take place? The partial answer which follows has been divided into five descriptive statements.

I. If the nom. sg. mas. nouns end in a back vowel followed by a nasal and a homorganic voiced obstruent then the back vowel alternates with a front one in oblique cases, e.g.: *ząb*, *dąb*, *jastrząb*, *gołąb*, *kłąb*, *zrąb*, *błąd*, *urząd*, *mąż*, *krąg*, *gałąź*, *ksiądz*, etc.

Exceptions: *ląd*, *sąd*, *posąg*, *ogląd*, *mosiądz*, *trąd*, *drąg*. In other words, back vowels appear in closed syllables and front in open ones. Alternations never occur otherwise, that is:

a) if a mid vowel appears before a nasal followed by a homorganic obstruent, e.g.: *pęd*, *krawędź*, *kręg*, *oręż*, *obłęd*, *łabędź*; *pąk*, *przekąs*, *strąk*, *wąs*, *bąk*, *brzdąc*, *kąt*, *kabłąk*, *pająk*; *brzęk*, *chęć*, *skręt*, *dźwięk*, *wstręt*, *jęk*, *lęk*, *wstęp*; exceptions: *tysiąc-tysięcy*, *miesiąc-miesięcy*;

b) if a mid vowel followed by a nasal and a homorganic obstruent does not appear in steam-final syllable, e.g.: *bękart*, *krążownik*, *kłębowisko*;

c) in words that are synchronically foreign (Chomsky and Halle 1968 : : 373 ff), e.g.: *anons*, *lament*, *inteligent*, *sens*, *agent*.

II. In diminutives formed by the suffixes *-ek*, *-ka*, *-ko* the stem-final vowel is invariably back no matter what vowel the basic form may contain, e.g.: *kęs-kąsek*, *gęś-gąska*, *część-cząstka*, *chrzęść-chrząstka*, *grzęda-grządka*, *ręka-rączka*, *dąb-dąbek*, *gałąź-gałązka*, *łąka-łączka*, *strąk-strączek* also in a large group of nouns denoting small animals that end in *-ę* in the nom. sg., e.g.: *bydlę-bydlątko*, *kocię-kociątko*, *oślę-oślątko*. Likewise: *cielę*, *jagnię*, *kurczę*, *szczenię*, *źrebię*, *orlę*, *pisklę*, *prosię*, *sarnię* etc. The same is true about a certain number of nouns where the suffixes are added although the nouns need not be diminutives in the normal sense, e.g.: *pamięć-pamiątka*, *dziewięć-dziewiątka*, *dziesięć-dziesiątka*, *pięć-piątka*, *święty-świątek*, *kęs-zakąska* or where the diminutive is the only form in existence, e.g. *wrzątek*.

Exceptions: *dętka*, *piętka*.

III. Before the adjectival suffix *-ny* the stem-final vowel almost invariably is front if followed by a nasal and a homorganic obstruent, no matter what vowel appears in the basic form, e.g.: *błąd-błedny*, *majątek-majętny*, *mącić--mętny*, *mąż-mężny*, *miesiąc-miesięczny*, *ząb-nazębny*, *pojąć-pojętny*, *rząd-podrzędny*, *ogląd-oględny*, *ręka-ręczny*, *pamięć-pamiętny*, *wstąpić-wstępny*, *pieniądz--pieniężny*, and vacuously *doszczętny*, *chętny*, *namiętny*, *nędzny*, *piękny*, *szczęsny*, *wdzięczny*, *obojętny*, *potężny*, *tęskny* etc.

Exceptions are very infrequent; the following almost exhaust the list: *łączny*, *żądny*, *porządny*, *nierządny*, *przesądny*, *rozsądny*.

IV. Feminine and neuter nouns that end in a vowel in the nom, sg. change the stem-final front vowel, followed by a nasal and a homorganic obstruent, into back when it appears in a closed syllable, i.e. in gen. pl., e.g.: *święto-świąt*, *jagnięta-jagniąt*, *wstęga-wstąg*, *męka-mąk*, *ręka-rąk*, *niemowlęta-niemowląt*, *dziewczęta- dziewcząt* etc.

Exceptions: *pęta-pęt*, *pięta-pięt*.

V. In verbs, the stem-final back vowel followed by a nasal and the infinitival ending *-ć* alternates with a front vowel in passive participles in *-ty* and in nouns derived from these verbs. The front and back vowels appear, as above, in open and closed syllables, e.g.: *nająć-najęty-najęcie*, *pojąć-pojęty-pojęcie*, *ciąć-cięty-cięcie*, *wykląć-wyklęty-wyklęcie*, *tknąć-tknięty-tknięcie*, *począć-poczęty--poczęcie*, *ogarnąć-ogarnięty-ogarnięcie*.

It must be noted that in some cases the application of a specific rule seems to depend on semantic features, i.e. it is phonologically unpredictable, e.g.: *pęk-pęczek* "bunch" vs. *pąk-pączek* "bud", *rząd-rządy* "government" vs. *rząd-rzędy* "row", *sęk-sączek* "knot" vs. *sączek* "filter", *wiąz-wiązy* "elm" vs. *więzy* "bonds".

The above survey of the vocalic alternations in the environment before nasals is anything but complete. A detailed analysis of the problem would require a separate study set within other rules of Polish phonology that are not available at the moment. The purpose of the survey was to single out some recalcitrant problems and to show that what may seem erratic at first glance is in fact quite regular.

We started our comparison of nasality in Polish and English by noting that the two languages differ considerably in the degree to which they exploit the feature /+nasal/. The analysis has shown that phonological representations in the two languages make use of the same nasal segments: /m/ and /n/ sometimes not even fully specified, i.e. /N/. The only differences in underlying representations consist in the possibilities of clustering nasals with other segments. The considerable surface discrepancies between nasality in Polish and in English rest then with the phonological rules and the feature interpretation rules operative in the two languages. The rules, although sometimes similar in parts, work largely differently. It is this different working of phonological rules that brings heterogeneity into otherwise similar patterns.

REFERENCES

Benni, T. 1959^2. *Fonetyka opisowa języka polskiego*. Wrocław: Ossolineum.

Biedrzycki, L. 1963. "Fonologiczna interpretacja polskich głosek nosowych". *Biuletyn PTJ XXII*. 25 - 45.

Biedrzycki, L. 1972. *Polnische Aussprache*. Warszawa: Wiedza Powszechna.

Chomsky, N. 1964. *Current issues in linguistic theory*. The Hague: Mouton.

Chomsky, N. 1965. *Aspects of the theory of syntax*. Cambridge, Mass.: M.I.T. Press.

Chomsky, N. and M. Halle. 1965. "Some controversial issues in phonological theory". *Journal of linguistics 1*. 97 - 138.

Chomsky, N. and M. Halle. 1968. *The sound pattern of English*. New York: Harper and Row.

Cygan, J. 1971. *Aspects of English syllable structure*. Wrocław: Ossolineum.

Doroszewski, W. 1963. *Podstawy gramatyki polskiej*. Warszawa: PWN.

Fudge, E. 1970. "Phonology". In: *New horizons in linguistics*. Ed. by J. Lyons. 76 - 95. London: Penguin Books.

Fudge, E. 1972. "Review of Postal 1968". *Journal of linguistics* 8. 136 - 156.

Gimson, A. C. 1962. *An introduction to the pronunciation of English*. London: Longmans.

Gladney, F. 1968. "Some rules for nasals in Polish". *Studies presented to professor Roman Jakobson by his students*. Ed. by C. Gribble. 112 - 120. Cambridge: Slavica Publishers.

Harms, R. 1968. *Introduction to phonological theory*. Englewood Cliffs: Prentice Hall.

Harris, J. 1969. *Spanish phonology*. Cambridge, Mass.: M.I.T. Press.

Harris, J. 1970. "Distinctive feature theory and nasal assimilation in Spanish". *Linguistics* 58. 30 - 37.

Hurford, J. 1971. "The state of phonology". *Linguistics* 71. 5 - 41.

Jassem, W. 1951. *Wymowa angielska*. Warszawa: PZWS.

Jones, D. 1967. *Everyman's English pronouncing dictionary*. Ed. by A. C. Gimson. London: Dent. and Sons Ltd.

Klemensiewicz, Z. 1962. *Podstawowe wiadomości z gramatyki języka polskiego*. Warszawa: PWN.

Lakoff, G. 1970. *Irregularity in syntax*. New York: Holt, Rinehart and Winston.

Lightner, T. 1963. "Preliminary remarks on the morphophonemic component of Polish". *Quarterly progress report* 71. 220 - 235.

Lightner, T. 1968. "On the use of minor rules in Russian phonology". *Journal of linguistics* 4. 69 - 72.

Panov, M. 1970. „O značenii morfologičeskogo kriterija dla fonologii". *Iz istorii otečestvennoj fonologii*. Ed. by A. Reformatskij. 368 - 373. Moskva: Izdatelstvo "Nauka"

Postal, P. 1968. *Aspects of phonological theory*. New York: Harper and Row.

Schenker, A. 1954. "Polish conjugation". *Word* 10. 469 - 481.

Szober, S. 1962. *Gramatyka języka polskiego*". Warszawa: PWN.

Wierzchowska, B. 1971^2. *Wymowa polska*. Warszawa: PZWS.

Zagórska, Brooks, W. 1968. *Nasal vowels in contemporary standard Polish*. The Hague: Mouton.

STRESS IN ENGLISH AND POLISH — AN INTRODUCTION TO A CONTRASTIVE ANALYSIS

JANINA OZGA

The Jagellonian University of Cracow

The aim of this paper is to provide a general theoretical framework for an exhaustive contrastive analysis of stress patterns in English and Polish. Consequently, the possible pedagogical implications of the analysis in question will be no more than signalled, which does not mean that the more utilitarian approach is disregarded on principle. The apparent disregard arose from the obvious fact that practical conclusions can only be subsequent to a careful comparison of scientific descriptions of the languages studied, or of selected areas of their structure, in this case of an aspect of English and Polish sound structure.

To make this kind of comparison possible it is essential that the general framework should be *uniform*, i.e. that it should consist of precisely formulated principles and processes which will yield as final products parallel scientific descriptions (of the languages considered) comparable in the sense that they will be stated in terms of the same or comparable categories, features, and sets of relations.

It seems that the condition of "uniformity" is most adequately and consistently met by the transformational generative (TG) theory. As a basis for a contrastive study TG grammar is found superior to alternative models of language description for two main reasons:

(1) as the most ambitious attempt at developing a general "theory of natural language as such" (Chomsky and Halle 1968 : 4), it seeks to provide language-independent principles of organization of a grammar and to determine sets of universal elements (classes, categories, features);

(2) as a formalized theory of language description, based on an alphabet of

unambiguously interpreted symbols and notational devices, it strives to formulate statements which are not only precise and explicit but which, through constant verification and modification, may become the simplest optimal interpretations of linguistic facts (linguistically significant generalizations).

The description of a particular language based on the principles given above is essentially a formalized grammar constructed on the basis of an inventory of formal and substantive universals, provided by the general theory. In this way, although the grammars of, say, English and Polish draw from this inventory in different, language-specific ways, they are, thanks to rigorous notational conventions, comparable in so far as it is possible to state (informally, at this point) that a given element (class, feature, rule) of English

$$\left\{\begin{array}{l}\text{does (not) occur}\\ \text{does (not) function}\\ \text{is (not) (equivalent) (congruent) with a given element}\end{array}\right\}$$

in Polish and vice versa. Moreover, knowing the general principles of linguistic structure, it may be possible to state whether the occurrence (equivalence, congruence) of element X in English and Polish is conditioned by the fact that X is an essential property of all languages (property of language), or is accidental, or is due to their common, though remote, origin. Such statements may prove to be of extreme importance for the preparation of teaching materials.

On the other hand, contrastive analysis and parallel descriptions prior to it may bring to light hitherto unrevealed "universal principles", or they may modify and even invalidate some of the proposals of the general theory. This brings another dimension into a contrastive study: it does not consist merely of "putting theory into practice", but also acts as a filter to the theory. This aspect of contrastive studies will not be considered in this study.

The above statements suggest that the TG approach is the most adequate basis for inter-language studies. It has, indeed, been found successful in contrastive analyses of syntactic problems (see Marton 1968 and 1971). It remains to be seen whether it is equally well equipped for a contrastive analysis of phonological problems.

The argument presented below derives its basic concepts from the phonological theory proposed by Chomsky and Halle (1968), though it has also been influenced by the other works cited. Against this sophisticated background many links in the reasoning may appear strikingly primitive and indulging in truisms. It is hoped, however, that relating things "ab ovo" may both add to the clarity of exposition and reveal the importance of some undeservedly obscured factors.

The major principle underlying the discussion is that of establishing a general framework (in terms of rules, symbols and conventions) within which stress contours of any language may be analysed. On the other hand, some statements will refer directly to English and Polish in order to determine, even if superficially and tentatively, whether the processes governing stress placement in the two languages may be compared only in a very general way or whether they are convergent also at points of detail.

Let us consider a pair of congruent (term used after Marton 1968 : 58) sentences, one in English,

(1) John knows this house.

one in Polish,

(2) Jan zna ten dom.

Suppose we use the syntactic component of TG grammar (of English and Polish respectively) to generate syntactic descriptions of (1) and (2) with syntactic surface structures which are labelled bracketings of strings of formatives (notation after Chomsky and Halle 1968):

(3) $[_S[_{NP}[_N\text{John}]_N]_{NP}\ [_{VP}[_V\text{know}]_V\ \text{af}]_V\ [_{NP}[_D\text{this}]_D\ [_N\text{house}]_N]_{NP}]_{VP}]_S$

(4) $[_S[_{NP}[_N\text{Jan}]_N]_{NP}\ [_{VP}[_V\text{znać}]_V\ \text{af}]_V\ [_{NP}[_D\text{ten}]_D\ [_N\text{dom}]_N]_{NP}]_{VP}]_S$

The lexical and grammatical formatives, here presented in abbreviatory orthographic notation, are in fact complexes of syntactic, semantic and phonological features, provided by the lexicon of the grammar. Phonologically, each formative is a string of segments, which constitutes its "lexical representation". Furthermore, each segment is itself a complex of phonetic features taken from a universal set. Since a lexical representation of a given formative specifies only its inherent (idiosyncratic) phonological properties, only those features of its segments are provided which are not determinable by phonological rules. Thus a lexical representation is really an abstract form consisting of incompletely specified "archi" segments. The rules of the phonological component convert such underlying forms into fully-specified phonetic representations: "directives" for ideal phonetic interpretation of formatives and larger utterances.

In order to enter the phonological component whose rules assign ideal phonetic representations to (3) and (4), the latter must first be converted by certain readjustment rules into "phonological representations" — such modifications of syntactic surface structure as are "appropriate for the rules of phonological interpretation" (Chomsky and Halle 1968 : 9). And so certain readjustment rules will convert the grammatical formative *af*, introduced by syntactic rules, into phonological elements, ultimately giving $[_V\text{knows}]_V$ in (3) and $[_V\text{zna}]_V$ in (4). Otherwise, we can assume that the lexical representations of (3) and (4) are identical with their respective phonological representations.

Let us now make the following assumption:

(I) From the set of phonetic features universally available for determining the possible phonetic representations of utterances of any human language, both English and Polish utilize only segmental non-prosodic features.

In accordance with this assumption the phonological components of the grammars of English and Polish will ultimately convert (3) and (4) into:

(5) dʒɔnnɜwzðishaws

(6) janznatendom[1]

i.e., there will be a simple temporal succession of segments bound by silences at both ends for no other reason than that nothing precedes and nothing follows it. Now in writing, "the secondary medium of language", representations like "Johnknowsthishouse" and "Janznatendom" are possible: there are no serious physical constraints on typing (or even handwriting) whole pages in this fashion, though, of course, their intelligibility would be impeded and ambiguities would undoubtedly occur, e.g. of the sort used in puns or *calembours* (English: *aniceman*, *seethemeat*, *readjustthis*; Polish: *czytrzymasz*, *odstudni*, *kilowaty*), at sentence boundaries, etc. But, to paraphrase Chomsky and Halle (1968 : 10), speakers, unlike writers, *do* run out of breath; there are certain universal constraints on the way a sentence can be uttered or joined with other sentences in any language. Perhaps (5) and (6) could, thanks to their shortness, be uttered in one breath (though surely not without some *stress* and *pitch* characteristics), but any longer stretch of speech needs *pauses*. The question now arises whether these pauses are only features of performance, i.e., whether they occur whenever a particular speaker happens to run out of breath. This is certainly not true. Pauses are universal phonetic features, determined by language-independent physiological factors, but their duration and distribution are determined by the phonological and syntactic structure of particular languages (though, of course, "pauses of performance" may cut across "pauses of competence"). At this point the important questions are how are pauses realized in English and Polish and whether the two languages are comparable "pausewise".

The most meticulous scansion possible seems to insert pauses in (5) and (6) in the following way:

(7) //dʒɔn/nɜwz/ðis /haws//

(8) //jan/zna/ten/dom//

("/" — a shorter pause, "//" — a longer pause, before and after (5) and (6) when pronounced in larger pieces of discourse[2]; "longer" and "shorter" are impressionistic, relative terms, not absolute, physically constant ones).

---

[1] Transcription for both English and Polish is that of Jassem 1971.

[2] Possible "machine-made" intersegmental pauses are disregarded here (see Cygan 1971: 17).

It appears that the congrunce of the sentences extends to pause division. Also, there is a similarity in the substance and use of the suprasegmental prosodic characteristics of (7) and (8), which, though denied any existence in Assumption I, empirically refute its value. Utterances cannot do without prosodic features any more than than they can do without pauses. In fact, there exists a close relationship between these phenomena, the nature of which will be investigated (rather superficially) below. In any case, for all purposes, Assumption I is untenable; perhaps (5) and (6) could be produced by speech-synthesizers, but it is doubtful whether a longer stretch of such "talk" would be understood.

Let us put forward another assumption:

(II) Apart from segmental features, both English and Polish make use of pauses and prosodic features associated with syllables of their utterances: pauses occur at syllable boundaries and prosodic features use syllables as the units over which they function.

Assumption II appears to be correct, at least for (7) and (8). The empirically established pauses (artificial perhaps, but permissible) occur between groups of segments which in English and Polish are termed syllables.

Since the problem of the syllable is not central to this study, let us mention only briefly those facts concerning the syllable, which are relevant to the study of pauses and prosodic features:

(a) phonetically, the division of utterances into syllables is language-independent, determined by the respiratory processes involved in speech-production. The stream of air to be modulated by the speech organs is exhaled from the lungs (or inhaled in some languages) rhytmically, in a series of chest-pulses (Abercrombie 1965 : 17; Hockett 1958 : 64). Each chest-pulse correlates with a phonetic syllable which consists of a peak (vowel or sonorant which renders the chest-pulse audible and so is an indispensable part of a syllable) and of optional consonantal margins. There are as many phonetic syllables in an utterance as there are syllable peaks (nuclei). Phonetic syllables are the smallest units of speech that can be uttered in isolation i.e. between "/" and "//" pauses (see Note 2);

(b) phonologically, syllable-division and -structure are language-specific. Each language puts specific constraints (which must be accounted for in its grammar) on the number of segments and on the way they are combined to form syllables of that language (i.e. what segments or groups of segments can constitute peaks and margins).

The syllable-division of (7) and (8) is based on the native speakers' knowledge of the constraints mentioned in (b). Thus, the syllable in these representations are phonological syllables of English and Polish respectively.

Though the segments constituting (7) and (8) are different, the number of pauses and syllables is the same: their *rhythm* is identical. It is a syllable-timed rhythm (spondaic), based on the isochronous occurrence of syllable peaks:

(9) //$\overset{-}{\frown}$/$\overset{-}{\frown}$/$\overset{-}{\frown}$/$\overset{-}{\frown}$// (10) //$\overset{-}{\frown}$/$\overset{-}{\frown}$/$\overset{-}{\frown}$/$\overset{-}{\frown}$//

(9) and (10) are not, however, absolutely adequate representations: they do not account for the fact that the last syllable of (7) and the first of (8) are more strongly *stressed*, more prominent than all the others, this prominence being due to greater energy of articulation (perceived as greater loudness) and to pitch movement of different nature and direction from that of the remaining syllables. (7) and (8) should then be interpreted as follows:

(11) /¯/–/–/\\// (12) //–/¯/–/–//

If the grammatical descriptions of English and Polish were based on (syllabized interpretations of) sentences like (1) and (2), the phonological component of the grammars would be very uncomplicated indeed. The underlying lexical (phonological) representations (3) and (4) would differ only insignificantly from phonetic representations, readjustment rules would substitute $[_S \ldots]_S$ brackets by // pauses, erase all labelled bracketing within the sentences and eliminate the affix. A rule of phonology would insert / pauses at syllable boundaries, another rule would assign the feature "nuclear (sentence) stress" to the vowel of the last syllable in English and to the first in Polish. Stress would then be a redundant phonetic feature, auxiliary (together with pitch) to the pause determining sentence boundaries.

Though such a phonological component might, perhaps, be adequate for the Tswana language (cf. Jones 1962 : 136), it would assign correct phonetic representations only to an extremely limited number of English and Polish sentence-types (spoken quite unnaturally, at that). As it happens, neither in English nor in Polish are the stress-, pitch- and pause-assignment rules so directly determined by the syllable count as would appear from (1) and (2), though every element to which they apply must consist of integers of syllables. Assumption II will, therefore, have to be modified.

It may be seen from the preceding paragraphs that the features "pause", "stress" and "pitch" are not assigned to utterances independently of one another. Since, however, stress is the feature upon which the attention of this study is to be focused, the other two will not henceforth be considered *suo lege* but rather in so far as they are indispensable for elucidating problems involving stress.

Thus the next assumption to be made will directly refer to stress only:

(III) Both in English and in Polish the degree of stress assigned to particular syllables of an utterance is determined by the surface structure of that utterance.

Though intuitively felt to be correct, Assumption III, in its present formulation, is too general to provide a deeper insight into the nature of stress in the two languages or into general principles pertaining to it in the organization of the phonological component. Our immediate task will then be refining the assumption so that it may ultimately become a guiding principle for the analysis of stress.

In the analysis of (1) and (2) only two degrees of stress were mentioned: the "stronger" stress associated with a specific pitch movement and the "weaker" stress assigned indiscriminately to the other syllables of the utterances. That was only possible owing to surface structures which allowed syllabification. Actually, the stress contours of utterances in both languages are highly differentiated, though the differentiation is neither haphazard nor directly determined by physiological or physical factors. Both in English and Polish four to five degrees of stress are easily perceived (Chomsky and Halle 1968 : 116; Dłuska 1957 : 104); it is proposed in Assumption III that such observations reflect (imperfectly though adequately enough) the differentiations imposed by the syntactic organization of utterances and lexical items appearing in them (as well as some other, hitherto unspecified, factors).

If stress assignment is governed by the surface structure of utterances, it seems reasonable to expect that the complexity of stress contours increases with the complexity of the surface structure of particular utterances. Let us then begin with the simplest, monosyllabic utterances, such as English *Stop* or *Yes* and Polish *Stój* or *Tak*[3]. Here, both for English and for Polish utterances, no matter what their structural description, the following rule is valid:

"In monosyllables, the vowel receives primary stress" (Chomsky and Halle 1968 : 16).

As there is no other syllable which could bear a "non-primary" stress, the use of the modifier "primary" does not seem justified. However, the *only* stress of monosyllables is comparable to the primary stresses of polysyllabic utterances in so far as both are associated with a specific pitch movement.

As soon as two-syllable utterances are considered, the rules of the placement of primary and weaker stresses must depend on the information provided by the surface structure representations of such utterances, as is best exemplified by contrastive pairs like the famous English *black bird* (NP) vs *blackbird* (N) or Polish *na bój* (PP) vs *nabój* (N)[4].

To account for this dependence (and for some other phonological processes)

---

[3] Actually any syllable (in both languages) can form an utterance; even such ones as are not ordinarily "stressed" or capable of appearing in isolation in English, e.g., to a question "Did you say 'allusion' or 'illusion'?" it is possible to answer "[æl]", according to certain phonological principles which cannot, at this point, be discussed in full.

[4] But cf. prepositional phrases like ˈ*na wieś* where the preposition is stressed; such and similar forms are historically motivated.

Chomsky and Halle propose the general principle of a "transformational cycle" in phonology, according to which some rules of the phonological component (notably the stress assignment rules) are transformational rules "that apply in a cyclical manner, beginning with the smallest constituents of the surface structure and proceeding systematically to larger and larger constituents" (1968 : 163). The last rule in each cycle erases the innermost labelled brackets; the maximal domain of the cyclical rule application is a "phonological phrase" (see p. 131 below). The actual stress assignment rules are language-specific: only the principle of the transformational cycle is assumed to be a linguistic universal. Chomsky and Halle have managed to explain a variety of problems involving stress on the basis of this principle[5]; statements and examples of Dłuska (1957 : 104 and 1947 : 41)[6] seem to confirm that the stress contours of Polish are also based on this principle. Thus Assumption III may be made more precise by the addition of the reservation that the stress assignment rules of English and of Polish, determined by the surface structures of utterances in these languages, are rules of the transformational cycle, as defined by Chomsky and Halle 1968. There seems to be enough justification for accepting Assumption III thus modified as the basis for a detailed description of stress contours in English and Polish, which does not mean that all of the Chomsky-Halle principles must be slavishly followed (especially as they refer to very simple constructions).

Assumption III requires one more modification: it must be stated explicitly what kind of "surface structure" it is that determines the stress contours of utterances. If it is agreed that stress placement rules belong to the phonological component, then it can only be the *phonological* surface structure (according to what was said on p. 125). Thus it is imperative that readjustment rules (apart from other modifications) "prepare" the syntactic structure for the operation of stress placement rules. These readjustment rules cannot be ommitted from the "detailed descriptions" to be made because, if it is assumed that they operate on strings generated by syntax, which for both English and Polish are analysed in terms of the same lexical and major categories, then their language-specific "interference" is crucial for understanding how ans why differences and subsequent difficulties for learners arise. English and Polish share some of their readjustment rules concerning stress placement. For example, it appears, even from a superficial analysis, that the demarcation of utterances into phonological phrases is on the whole identical in both these languages, i.e. a simple sentence = 1 phonological phrase, compound sentences are divided into phrases in the same way (e.g. before conjunctions, if present), appositional sentences or phrases receive the same treatment, etc.[7] Both in English and in Polish the phonological phrase is a unit of intonation, i.e., it contains one tone-bearing (as Catford put it, cf. 1966: 606) syllable, which is at the same time its primary-stressed syllable (this is in keeping with what has been said about the pitch characteristics of primary stresses). Hence our examples (1) and (2) are phonological phrases of English and Polish respectively, each having one tonic (nuclear) stress:

---

[5] In particular, they were able to demonstrate that the stress contours of English words, commonly held to be extremely irregular and unpredictable, can, in fact, be predicted from the underlying lexical representations of formatives and their organization in the surface structure if the principle of the transformational cycle is utilized.

[6] She mentions the "many-storeyed" pattern of stress contours and their gradation. Her statement that the stress contours of longer utterances reflect those of their parts is strikingly similar to that of Chomsky and Halle (1968: 15).

(13) 234*1*   (14) *1*324   (1 — primary-stressed syllable
2 — secondary-stressed syllable, etc.)

The position of primary stress is different in English and in Polish; also, they form different patterns with the weaker stresses. Such differences are not only the result of the fact that the two languages have different cyclical rules of stress placement in phonology, but also of the specific analysis which readjustment rules provide for their utterances. In order to understand this important function of readjustment rules in modifying the syntactic surface structure for purposes of stress assignment within phonological phrases, it is necessary to introduce certain types of "boundaries", which are connected in a characteristic manner with "pauses" discussed earlier. It has been said that apart from segments the phonetic representations of utterances in English and Polish must contain pauses. It has proved inadequate for most utterances in the two languages to insert the pauses at syllable boundaries (cf. Assumption II). It is, therefore, reasonable to assume that pauses are not introduced by the phonological itself, but are realizations of certain sets of features — different for different pause-types but all including the feature [−segment] — which are already present in the phonological surface structure of utterances. A more scientific term used to name such sets of features is "boundary" or "juncture"; the term "pause" is reserved for the possible phonetic actualizations of boundaries. The following kinds of boundary are important for stress placement rules[8]:

(1) phonological phrase boundary (correlative to our//pause), which is introduced by readjustment rules;

---

[7] Naturally, the readjustment rules dividing utterances into phonological phrases have to be carefully formulated, which is beyond the scope and purpose of this paper. It should be mentioned, however, that these rules will have to account for certain performance factors (e. g. speed, register) and also for free variation.

[8] The formative boundary "+" is disregarded here because it cannot block the application of stress placement rules. It will, nevertheless, have to be considered in a detailed study, where the conversion of # into + in certain contexts influences stress rule application.

(2) word boundary # (correlative, in certain configurations, to our / pause), which operates within phonological phrases. It is introduced into syntactic surface structures as a result of a general convention: "The boundary # is is automatically inserted at the beginning and end of every string dominated by a major category, i.e. by one of the lexical categories "noun", "verb", "adjective", or by a category such as "sentence", "noun phrase", "verb phrase", which dominates a lexical category" (Chomsky and Halle 1968: 366).

It appears from the convention that phonological phrase boundaries correlate with word boundaries associated with certain types of consituents (e.g. "S"). The function of readjustment rules in the demarcation of utterances into phonological phrases is the conversion of certain (specified) word boundaries into phonological phrase boundaries in order to delimit the domain of cyclical rule application. On the other hand, the readjustment rules have another important function, signalled above, in connection with the # boundary. Namely, proper modification of the syntactic structure within the phonological phrase, which is prerequisite for proper stress assignment in the phonological component, is to a considerable degree the result of the application of language-specific readjustment rules which:

(1) delete # in certain positions
(2) substitute # in certain positions
(3) retain # in certain positions, to block undesirable phonological processes

Likewise, the readjustment rules eliminate, retain, or even shift certain labelled brackets (e.g. in the case of "proclitics" and "enclitics" of some lexical formatives) in order to ensure the correct application of the transformational cycle and also of other, non-cyclical, phonological rules. The importance of such modifications may be seen even from a superficial analysis of *ad hoc* examples; e.g. the presence of # prevents incorrect stress shift in words with affixes that are neutral in respect to stress placement: English: *teach # ing*, *happi # ness*; Polish: *poszli # byśmy*, *zabrali # ście*.

It seems that as far as stress is concerned the readjustment rules of Polish might eliminate the boundaries and labelled brackets far more radically than those of English (though this may not be quite true, as there are other aspects of phonology to consider). This is connected with the fact that the transformational cycle operating within the *word* (defined tentatively, after Chomsky and Halle 1968: 13, as a constituent by the configuration # # ... # # with no internal occurrence of # #, with no brackets involved as yet) is probably "shorter" in Polish than in English. This, in turn, may be caused by the fact that Polish has a "fixed" word stress, in the sense that primary and weaker stresses are assigned in the majority of cases automatically to certain syllables of the word, disregarding its internal structure with respect to both # and labelled bracketing (but cf. compounds below). Thus, the transformational cycle operates on words after pre-cyclical rules within the words have been applied (if any), yielding ultimately forms with the primary stress on the penultimate syllable, tertiary stress (second strongest permitted in words) on the first syllable, if there are four or more syllables, and weaker stresses, unspecified at this point, on all the remaining syllables, e.g., *sp$\overset{1}{o}$kój*, *spok$\overset{1}{o}$jny*, *z$\overset{3}{a}$spok$\overset{1}{o}$ić*. There are exceptions that must be accounted for in the lexicon or, preferably, by the readjustment rules, e.g. *pr$\overset{1}{e}$zydent*, *m$\overset{3}{a}$tem$\overset{1}{a}$tyka*; also compounds in which the tertiary stress is assigned to that syllable which received primary stress in the first element of the compound, e.g. *sz$\overset{3}{a}$ronieb$\overset{1}{i}$eski* vs. *dal$\overset{3}{e}$kob$\overset{1}{i}$eżny*, but cf. *Wielk$\overset{1}{a}$noc*, *zeg$\overset{1}{a}$rmistrz*, *Biał$\overset{1}{y}$stok*, compounds in which the second element is a monosyllable[9].

In English, more frequently than in Polish, categorial features of words and the internal structure of complex forms are indispensable cues for stress assignment. Word stress can be assigned properly only when these cues are present in the phonological surface structure, e.g., they must be available to secure correct stress placement in *$\overset{1}{i}$mp$\overset{3}{o}$rt* (N) and *imp$\overset{1}{o}$rt* (V) and in *ph$\overset{1}{o}$togr$\overset{3}{a}$ph* vs. *ph$\overset{1}{o}$tography* vs. *ph$\overset{3}{o}$togr$\overset{1}{a}$phic*, etc. Chomsky and Halle (1968) provided the first insight into the system of rules that assign stresses to English words and also some of the rules that ensure proper stress placement. These must be included, elaborated and modified in a detailed description of stress patterns in English. It is quite possible that the "etymological" approach[10] to the study of English stress (largely unnecessary for Polish, it seems) may provide new insights into the discussion. Even at this point, however, it is possible to state that the English rules of word stress assignment and the readjustment rules pertaining to them exceed in number and complexity those of Polish. The phonological surface structure of Polish appears to be shallower than that of English and as there are no vowel reduction rules in Standard Polish accompanying stress assignment rules (as is the case in English), the underlying lexical representations of formatives may turn out to be less abstract than in English.

The problems of stress assignment in phonological phrases involving constituents larger than words (as defined tentatively) are relatively simple in both English and Polish as long as (1) emphatic stress is not involved, (2)

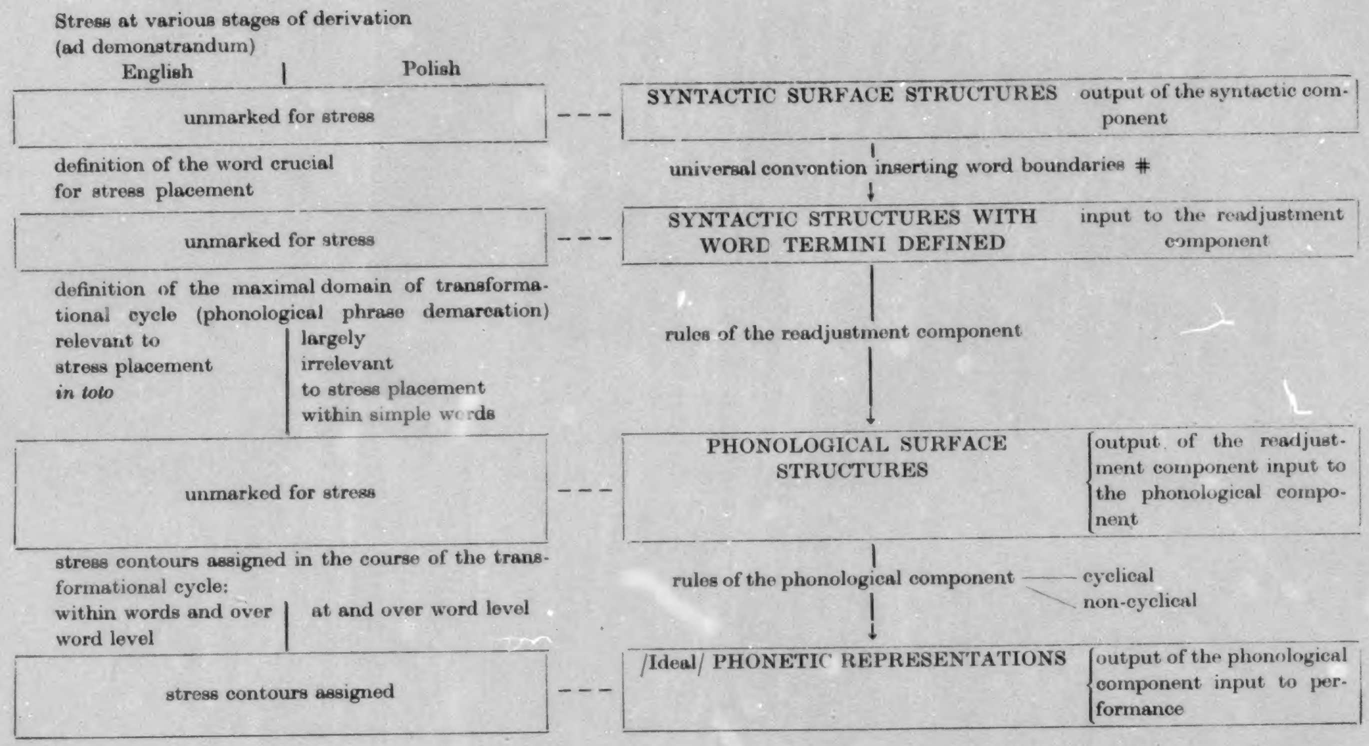
---

[9] Wierzchowska (1971: 219 ff.) suggests that in present-day Polish there is a tendency to reverse the positions of the stronger and weaker stresses, e.g. *j$\overset{1}{ę}$zykozn$\overset{3}{a}$wstwo*.

[10] This: I believe, is the approach of Keyser and Halle in their "Evolution of Stress in English".

DIAGRAM

A section of TG grammar in stress placement


Stress at various stages of derivation
(ad demonstrandum)
English
Polish
unmarked for stress
SYNTACTIC SURFACE STRUCTURES
output of the syntactic component
universal convontion inserting word boundaries #
definition of the word crucial for stress placement
unmarked for stress
SYNTACTIC STRUCTURES WITH WORD TERMINI DEFINED
input to the readjustment component
definition of the maximal domain of transformational cycle (phonological phrase demarcation)
relevant to stress placement *in toto*
largely irrelevant to stress placement within simple words
rules of the readjustment component
unmarked for stress
PHONOLOGICAL SURFACE STRUCTURES
output of the readjustment component input to the phonological component
stress contours assigned in the course of the transformational cycle:
within words and over word level
at and over word level
rules of the phonological component
cyclical
non-cyclical
stress contours assigned
/Ideal/ PHONETIC REPRESENTATIONS
output of the phonological component input to performance

the phonological phrase (sentence) is analysed completely into words that are lexical categories and include no proclitics or enclitics, i.e. non-lexical formatives, (3) the word order of Polish is "neutral", i.e. comparative to that of English. These conditions are, in fact, met in our examples (1) and (2), on the basis of which the general statement may be made that in English the tendency is to assign the nuclear stress (i.e. the primary tonic stress of the phonological phrase) to the primary-stressed syllable of the rightmost word of the phrase, while in Polish the tendency is to assign the nuclear stress to the primary-stressed syllable of the leftmost word (see (13) and (14)).

The more complex phrases, in which the three conditions are not met, have to be accounted for in the detailed descriptions of these aspects in English and Polish. It is proposed that such descriptions be made within the framework of TG theory, on the basis of a principle which is a modification of Assumption III, as elaborated above. Diagram on p. 134 summarizes in a systematic way all the aspects of the principle which have been discussed; moreover, it indicates the points at which the grammars of Polish and English are likely to differ/ converge with respect to stress contours.

REFERENCES

Abercrombie, D. 1965. *Studies in phonetics and linguistics.* London: OUP.

Catford, J. C. 1966. "English phonology and the teaching of pronunciation". *College English* 27. 8. 605 - 613.

Chomsky, N. and Halle, M. 1968. *The sound pattern of English.* New York: Harper and Row.

Cygan, J. 1971. *Aspects of English syllable structure.* Wrocław: PAN.

Dłuska, M. 1947. *Prozodia języka polskiego.* Kraków: PAU.

— 1957. "Akcent i atona w języku polskim". *Studia z filologii polskiej i słowiańskiej* 2. 92 - 121.

Hockett, C. F. 1958. *A course in modern linguistics.* New York: Macmillan.

Jassem, W. 1971. *Podręcznik wymowy angielskiej.* Warszawa: PWN.

Jones, D. 1962. *The phoneme: its nature and use.* Cambridge: Heffer.

Marton, W. 1968. "Equivalence and congruence in transformational contrastive studies". *Studia Anglica Posnaniensia* 1. 53 - 62.

— 1971. "Transformational grammar, psychology, and foreign language textbooks". *Studia Anglica Posnaniensia* 3. 81 - 88.

Wierzchowska, B. 1971. *Wymowa polska.* Warszawa: PZWS.

INTONATION OF ENGLISH AND POLISH DECLARATIVE SENTENCES

Halina Mackiewicz-Krassowska

Adam Mickiewicz University, Poznań

In the present paper an attempt will be made to outline briefly the chief intonational features of English and Polish declarative sentences. It seems reasonable enough to begin our discussion by stating in what sense the terms "intonation" and "declarative sentence" are to be used.

A declarative sentence is sometimes defined as an utterance which reports the state of affairs, but conveys no emotional involvement on the part of the speaker, whose attitude to the information expressed in the statement remains neutral and detached. This definition, if accepted, implies that a declarative sentence is characterized by a single intonational pattern only. As a matter of fact that pattern is similar in both languages: the sentences sound rather monotonous and a regular fall on the last prominent word of the sequence is easily perceived. For the purposes of our present investigation we therefore suggest a somewhat broader definition which differs from the one mentioned above in that it takes into account the speaker's attitude to the thought expressed in his statement. The clue to the intepretation of the statement is provided by intonation. Since there are dialectal variations among intonations and each may have its own melody, it should be noted that we shall deal only with the intonation of RP English used by the educated Southern British speakers on the one hand, and the intonation of standard educated Polish on the other.

As Daniel Jones put it "intonation may be defined as the variations which take place in the pitch of the voice in connected speech, i.e. the variations in the pitch of the musical note produced by the vibration of the vocal cords" (Jones 1964: 275). In other words the rises and falls in pitch level produce intonation in any language.

When we talk about the intonation of any language, we usually have in mind the pitch patterns, the speech tunes or melodies, the musical features of the language. But the pitch patterns or tunes of a given language are not necessarily the same in form as those of other languages. Consequently, the effects produced also differ, although, in some cases they may be very similar, if not the same. Moreover, in any language there is a limited number of pitch patterns used to produce definite meaningful effects. This makes it possible to describe the most frequently recurring patterns of pitch. It will be noted that intonation is always systematic and specific. This means that, though languages may, to a certain degree, resemble one another in this respect, there is no universal intonation. Intonation also contributes in a great measure to our understanding of a given sentence, because it provides us with additional information concerning the attitude of the speaker to the idea conveyed in his statement.

Basically, there are two functions of intonation: accentual and non-accentual. In the first one intonational changes are the best means of rendering prominent for a listener those parts of an utterance on which the speaker wishes to concentrate attention. In its non-accentual function, intonation distinguishes among different types of sentences and, moreover, provides us with some information as to the speaker's personality or emotional attitude, either to the listener or to the topic of conversation.

The tunes of language also constitute important active intonational elements. Tunes, strictly speaking, are the complete pitch patterns of sense groups. In English they always occur in association with stresses which are used on the words to which it is desired to give prominence in the sentence, but to which no particular feeling is attached. Stress is simply the energy of articulation which is used while uttering a word. It should not be confused with accent which additionally has a pitch-change. In English we have both accent and stress, the latter one is free. In Polish we have only fixed accent, falling generally on the penultimate syllable of a word.

The present author assumes that there are six basic tunes in Polish and in English. Some of them differ considerably in pitch. All English high tunes are medium tunes in Polish. The six tunes are:

1. Low fall, marked [ˎ]; appears in Polish and English. The voice falls from a medium to a very low pitch.
2. High fall, marked [ˋ]; typical of English. The voice falls from a high to a very low pitch.

2a. Medium fall, marked [\]; typical of Polish. The voice falls from a little above medium to a very low pitch.

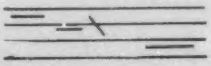
3. Rise-fall, marked [ˆ]; the voice first rises from a fairly low to a high pitch in English and less than high in Polish, and then quickly falls to a very low pitch. To make the expression "less than high" more precise, we may say that the pitch is here half way between medium and high.

4. Low rise, marked [ˏ]; appears both in Polish and English. The voice rises during the word from a low pitch to a medium pitch or a little above.
5. High rise, marked [ˊ]; typical of English. The voice rises during the word from a medium pitch to a high pitch.
5a. Medium rise, marked [⁄]; typical of Polish. The voice rises from a little above low to a little above medium pitch.
6. Fall-rise, marked [ˇ]; the voice falls from a fairly high in English and less than high in Polish to a rather low pitch, and then, still within the word, rises to a medium pitch.

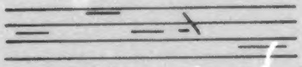
The system of notation used here is the same as used by I. D. O'Connor and G. F. Arnold, except for the markers of typically Polish tunes, which are introduced by the present author. Additional symbols used in the present paper are as follows. Each syllable is marked [–] and a vertical line | is used do divide a sentence into sense groups. Above each sentence a diagram illustrating pitch variations appears

At this point of our discussion let us go through the different types of declarative sentences and see which tunes are the most common in both languages. The division into the types of statements is that of Kingdon's, although some modifications have been made.

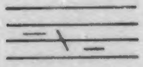
The most popular type of declarative sentences is a straightforward statement.



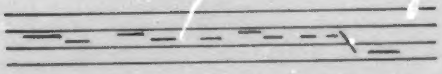
ˈJohn's ˋsmoking.



He's ˈcoming toˋmorrow.



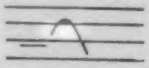
ˈJan ˋpali.



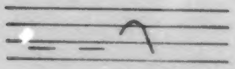
ˈDzisiaj ˈmamy piąˈtego listoˋpada.

Straightforward statements sound light and airy in English. It is probably due to the high fall end of the sentence and considerably high beginning. Polish sentences sound more monotonous, their beginning is a little higher than the level tune and the fall at the end is from a medium to a low pitch.

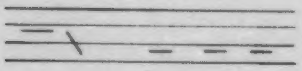
Another type of declarative sentences is a mocking or impatient statement. Its intonation is different in English and Polish. In English the rise-fall tune is generally used. In Polish the sentence starts with a medium pitch and falls to a very low pitch on the most prominent word and stays there.



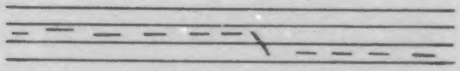
I ^know.



They're ^there.

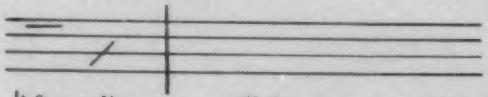


'Nie ˎznam tej ˌksiążki.

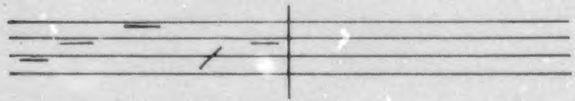


O'bawiam się, że nie ˋbędą po ˌtrzebne.

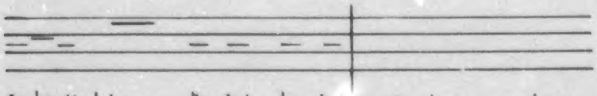
Occasionally statements are infinished. This results in a different pattern. Such sentences in both examined languages start with approximately the same tune, but they end differently. English sentences usually end with a low rise tune. Polish sentences for the most part have very levelled intonation and the final tune is the same as the opening one.



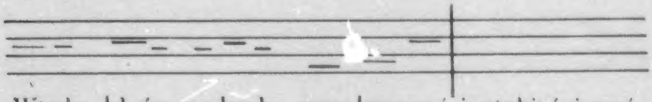
'After ˏdinner we will have some music.



If you ˈwant ˏthis one it'll cost you double.

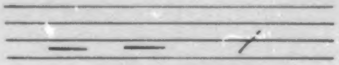


Jeˈżeli ˈdeszcz ˈbędzie ˈpadać zostaniemy w domu.

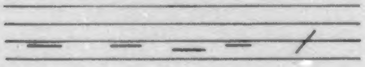


Wtedy ˈsłońce zaˈczęło ˌprzyˈgrzewać i ptaki śpiewać.

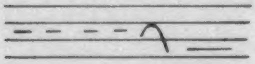
There are also statements in which the intonation pattern indicates the speaker's lack of interest in, casual attitude towards, or detachement from the subject matter. They are called perfunctory statements. Their pitch pattern are different in Polish and English. Thus, for the latter the intonation remains on a very low level and takes a low rise pitch on the last prominent word of a sense group. In Polish the last prominent word takes a rise-fall pitch and the preceding words of an utterance are on a medium pitch level.



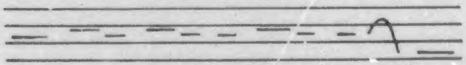
I ˌdon't think it ˏmatters.



You've got ˌplenty of ˏtime.

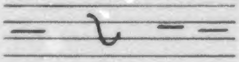


Może to i ^prawda.

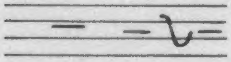


Nie ˈsądzę ˈżeby to ˈmiało zna^czenie.

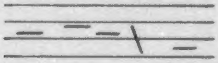
Another type of declarative sentences, the implicatory statements, have a fall-rise pitch in English, where it sometimes suggests an analogy, and a medium fall pitch in Polish. The fall-rise intonation is very rarely used in Polish. In the implicatory statements the speaker intends his hearer to understand more than the words themselves convey.



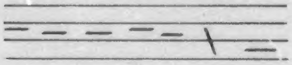
We preˇfer ˈcoffee.



It ˈwon't be ˇeasy.

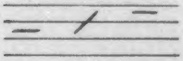


Woˈlimy ˎkawę.

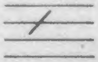


ˈJanek powˈrócił wˎczoraj.

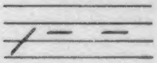
The implicatory statements with interrogative force are very widely used. Although, they are given the grammatical structure of a statement, they are psychologically questions.



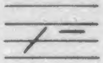
You ˊlike him.



ˊSugar.



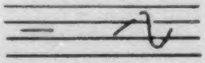
ˊLubisz go.



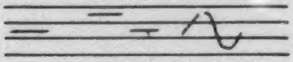
ˊCukru.

In English a high rise pitch is used and in Polish a medium rise pitch.

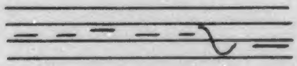
Still another type of declarative sentence is the insinuating statement. In English such statements take a fall-rise pitch, but it is preceded by an initial rising stress which emphasizes the insinuation contained in the tune. An analogous sentence in Polish would have a fall-rise intonation pattern.



They've arˇrived.

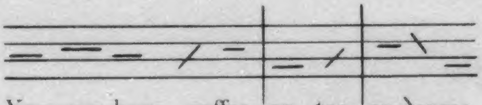


He's ˈcoming tómo ˇrrow.

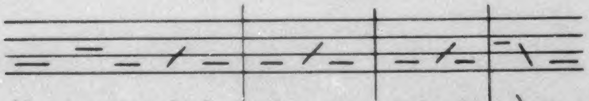


To zaˈłatwisz tęˇsprawę.

Finally, the enumerations. The intonation pattern is the same for both languages. When the items in enumeration are alternative they all have a low rise-pitch except the final one, which takes a high falling tune, in Polish a medium falling one, to indicate that the list is complete.



You can have ˏcoffee, or ˏtea, or ˋcocoa.



Mam papier ˏbiały, czerˏwony, nieˏbieski i ˋżółty.

As this brief analysis of Polish and English declarative sentences intonation shows, the falling intonation is used in Polish for the majority of cases. In Polish more words are uttered on a level tune which evokes the effect of monotony to some non-Polish speakers. Moreover, an average Pole's pitch of voice does not go as high as that of an Englishman. This also accounts for the relative paucity of those characteristic ups and downs heard in an English utterance. Even Polish women use lower high tunes than Englishwomen. The present author is inclined to believe that in Polish the force of articulation combined with greater loudness of the prominent word gives intonational meaning to the utterance. Since the accent in Polish is fixed and a pitch is in a way bound to it, the effect of pitch change is not produced. Sometimes the loudness of the accented words is such that even the most prominent pitch change in the sentence could not be possibly perceived.

In both language intonation consists basically of a slowly descending series of level tunes. The stresses in English and the accents in Polish fall on more important words in an utterance and are interspersed with unstressed or unaccented syllables. Both meaning and feeling are added to this framework by replacing the level tune of the most prominent word by a different tune.

As we have seen from the above examples, the pitch patterns of English an Polish statements are on the whole different. The only similarity in the intonational pattern can be noticed in straightforward statements and the patterns used for enumeration. Even then, the similarity is only apparent, as the Polish tunes, the high fall especially, are lower than those of English.

The study of Polish sentence intonation has, so far, been largely neglected. Only a handful of scholars took enough interest in the matter to produce some rather sketchy and general observations concerning the intonation of Polish statements and questions. The tentative preliminary analysis undertaken in this essay, short and inexhaustive as it must needs be, has also been greatly hampered by the paucity and inadequacy of reliable scientific material dealing with the problem of Polish sentence intonation. It is to be hoped, however, that this interesting question will soon receive due scholarly attention.

REFERENCES

Dłuska, M. 1957. "Akcent i atona w języku polskim". *Studia z filologii polskiej i słowiańskiej* 2. 92 - 121.

— 1947. *Prozodia języka polskiego*. Kraków: PAU.

Gimson, A. C. 1965. *An introduction to the pronunciation of English*. London: Arnold Publishers Ltd.

Jassem, W. 1962. *Akcent języka polskiego*. Wrocław — Warszawa — Kraków: Zakład Narodowy im. Ossolińskich.

Jones, D. 1964. *An outline of English phonetics*. Cambridge: Heffer.

Kingdon, R. 1966. *The groundwork of English intonation*. London: Longmans.

O'Connor, J. D. and Arnold, G. F. 1964. *Intonation of colloquial English*. London: Longmans.

Steffen-Batogowa, M. 1963. *Analiza struktury przebiegu melodii polskiego języka ogólnego*. Unpublished Ph. D. dissertation. Poznań: Adam Mickiewicz University.

Ward, I. C. 1962. *The phonetics of English*. Cambridge: Heffer.

Wodarz, H. W. 1962. „Zur Satzintonation des Polnischen". *Phonetica* 8. 128 - 46.

INTONATION OF INTERROGATIVE SENTENCES IN ENGLISH AND POLISH

ALICJA WOŁOSZYK

Adam Mickiewicz University, Poznań

When discussing intonation patterns of any language we must make a distinction between two basic functions of intonation. The *accentual* function becomes important when the speaker makes those parts of a sentence prominent on which attention should be concentrated and where the word carrying primary accent is marked by the pitch change occurring at the beginning of this word. The other function, the *non-accentual* function, helps to distinguish different types of sentences, e.g. the same sequence of words may be used with one type of intonation and be interpreted as a statement or with another and be interpreted as a question. Besides this, information as to the speaker's emotional attitude may be derived from his intonation.

Intonation in its accentual and non-accentual functions, concerned with the distinction of sequence types, constitutes a linguistic system which has a communicative function within a particular community.

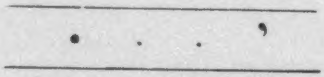
Let us see how both the functions of intonation are realized in English and Polish in the case of questions. There are four degrees of accentuation in an English utterance:

a) primary (or nuclear) accent — the syllable which receives the accent is the one on which the change in the direction of pitch starts. The nucleus is on the syllable on which particular attention is to be concentrated. There are four types of nucleus: falling, rising, falling-rising and rising-falling.

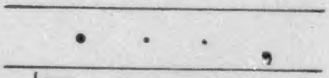
The falling nucleus.

The glide may start from the highest pitch of the voice range and fall to the lowest pitch (high fall) or from a mid pitch to the lowest pitch (low fall).

When a fall occurs on a syllable containing a short vowel the glide of a low fall is rapid and not easily perceptible. It may also be realized as low pitch in relation to a preceding higher pitch.



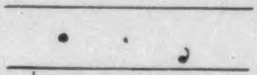
ˈWhat have you ˋgot?



ˈWhat have you ˎgot?

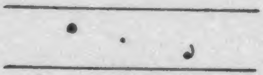
The rising nucleus.

The glide may start from a low pitch and go up to mid, or start from mid pitch and go up to the highest pitch. As with the falling nucleus, it is most easily perceptible when it occurs on a syllable containing a log wowel or diphthong or a voiced continuant consonant:

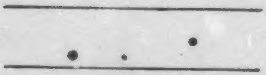


ˈCan you ˏsee?

When it occurs on a short syllable, in is usually more rapid and not easily perceitable:

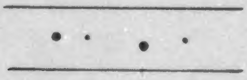


ˈCan she ˏcook?

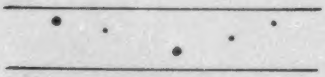


ˌCan she ˏcook?

When syllables follow the nucleus — the tail — the rise is achieved by means of a relatively low pitch on the nuclear syllable:



ˈIs it ˌraining?



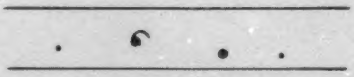
ˈAre you ˌcomfortable?

The falling-rising nucleus.

The voice falls from a fairly high to a rather low pitch and then, still within the word, rises to a mid pitch. It never appears with questions.

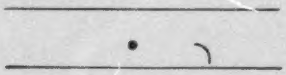
The rising-falling nucleus.

The glide rises from a fairly low to a high pitch and then quickly falls to a very low pitch. A fall may be reinforced by a rise, especially on a long syllable containing a voiced continuant consonant:



Dˈyou ^really ˌwant it?

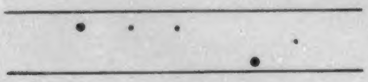
A short syllable followed by a tail may be relized as a low accented nuclear syllable followed by a fall on the tail



Oh ^would you?

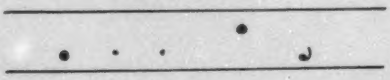
b) secondary accent — the pitch level changes on the accented (marked) syllable in the case of a pitch prominent accent and
c) in the case of a secondary accent without pitch prominence the accent is marked by qualitative, quantitative or rhythmic prominence (marked).

When there are syllables which precede the nucleus, they may have pitch prominence which means that they are given a high level pitch when initial, or a high level pitch in relation to preceding syllables



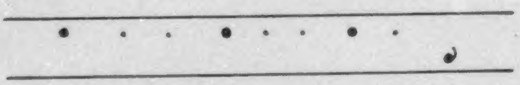
ˈWhen do you ˏwant it?

The first prenuclear accented syllable is known as the head. The syllables occurring between the head and the nucleus constitute the body. Accented syllables within the body may be given pitch prominence by means of a step down in pitch or by means of a step up. Prenuclear syllables may also be accented without pitch prominence only for reasons of stress. They may be said on a relatively low level, especially when they precede a high head:



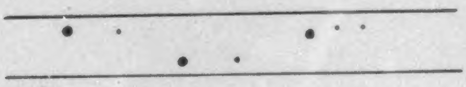
ˌCan you be ˈquite ˏsure?

If these syllables occur within the body, they have the same pitch as the preceding pitch prominent syllable:



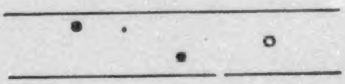
ˈWill you be ˌcoming to ˌsee us ˏoff?

After a rising nucleus the syllables given secondary accent continue on a rising pitch:



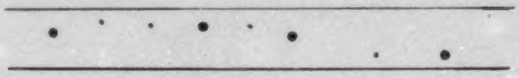
ˈDid you ˏsee him ˌyesterday?

If they are in the final position, they may have additional pitch prominence:



ˈDoes he ˏlike dogs?

d) Unaccented syllables do not usually have pitch or any other kind of prominence and they are unmarked. They are normally relatively low whether the nucleus is a fall or a rise. Within the body they remain at almost the same pitch as the preceding accented syllables:



'Will you be 'able to 'come to,morrow?

In Polish changes in the pitch of the voice are not connected with particular grammatical forms but they characterize longer spoken utterances. Intonation may also have the non-accentual function and inform the listener about the speaker's emotional attitude.

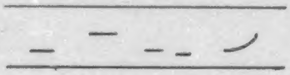
The last syllable in Polish questions is usually a high one. The tune of the last or the last two syllables of the utterance plus the stressed syllable has the most important function. The changes of the pitch on these syllables constitute the basic tune.

In Polish the following syllables may ne accented:

1. The first syllable of the basic tune.
2. In the longer utterance the syllable on which the pitch is the highest, that is, the tone is higher than at the end of the preceding and the beginning of the following syllable.
3. The syllable which precedes the one with an equally high tune, and the tune falls down then, but the following syllable is still lower.
4. At the beginning of an utterance the stressed syllable precedes the syllable bearing the lower tune, or
5. Precedes the syllable with an equally high tone after which the tune falls.

Intonation is closely connected with stress in Polish.

There are six basic tunes characteristic of Polish intonation: low rise, high rise, low fall, high fall, low level and high level. Low rise is the most common tune used in questions in Polish:

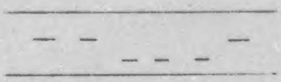


Czy mam ci pomóc?

The final rise is usually more strongly articulated and the syllable pronounced with greater strength. The low rise starts with the low tone. The beginning of this basic tune is at the same time its lowest point.

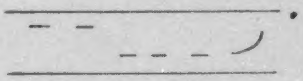
All the falling and rising tunes may have optional variants when there are two or more syllables in an utterance, e.g. in a two syllable utterance pronounced with the rising tunes both the syllables may have

a) the low level tone, as in:



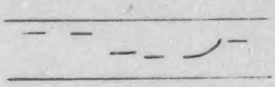
Jest tu jakaś kreda?

or b) the first one the level and the second one the rising intonation, as in:



Jest tu jakaś kreda?

or c) the first the rising and the second the level intonation, as in:



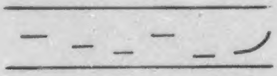
Jest tu jakaś kreda?

It may happen that two patterns of tunes may have a common variant. This, however, will not lead to ambiguity since when the tune is uttered and perceived, its phonetic value counts, too, and thus helps to decide which of the patterns is realized even if the melody itself is ambiguous.

For our purpose of discussing the non-accentual function of intonation we shall divide the questions in Polish into six groups.

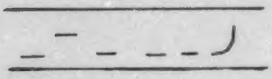
General questions.

General questions in Polish usually end in a rise. These are normal, neutral and polite questions:



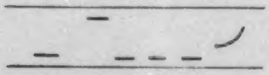
interest

Czy to wielka sztuka?



suggestion, interest

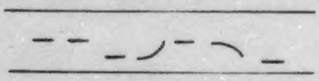
Pójdziemy do kina?



polite inquiry

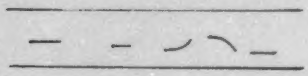
Czy dolać ci wina?

They may, however, end in a fall when the attitude is mocking, ironical or insistent:



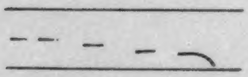
mocking, ironical

Jesteś zupełnie pewien?



insistent

Chcesz to sam zrobić?



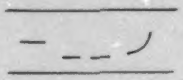
mocking, ironical

I ty mu wierzysz?

As can be seen from the above examples, normal and neutral questions have a somewhat diversified pitch pattern, and mocking, ironical or insistent follow the pattern: *low level, rise and fall.*

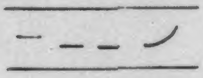
Special questions.

If they express interest or curiosity, they usually end in a rise:



curiosity, interest

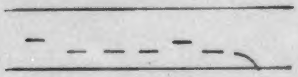
Co kupiłaś?



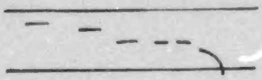
curiosity, interest

Dokąd idziesz?

They end with a fall when the speaker wants to express a reproach:

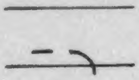

Dlaczego to zrobiłeś?

reproach

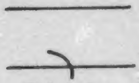

Kto za to zapłaci?

concern, reproach

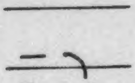
If the attitude is hostile, the low fall is used:


Ile?

hostility


Gdzie?

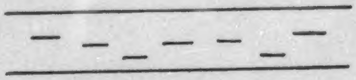
impoliteness

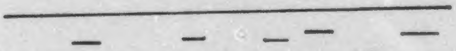

Po co?

impatience

Alternative questions.

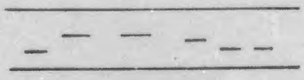
They are based structurally on the general-question type but the last pair of alternatives, or sometimes the only pair of alternatives, are separated by the conjunction *czy* which helps to identify this type of questions. Alternative questions always have fall-rise at the end:


Wolisz ciastka czy lody?

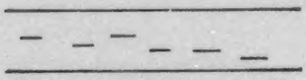

Mleko, kakao, herbata czy kawa?

Interrogative repetitions.

Interrogative repetitions end in a fall if we want to confirm the information we have got:

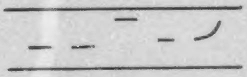


Wyszli przed godziną?



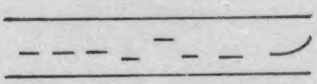
Nie ma go od wczoraj?

If we want, however, to express a great deal of surprise upon hearing a piece of news, our repetition will end in a rise:



incredulous, impressed

Wrócił do żony?

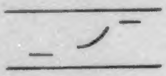


impressed, concerned

Ukradli jej całą pensję?

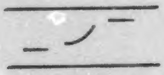
Echo questions.

These questions in Polish do not differ in form from interrogative repetitions but they follow a different intonation pattern. They express a greater emotional attitude of the speaker than in the previous type. They are characterized by a high rise:



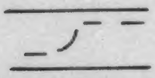
surprise, horror

Nie wróci?



incredulity

Pieniądze?

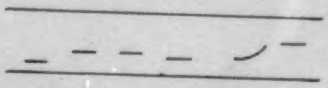


horror

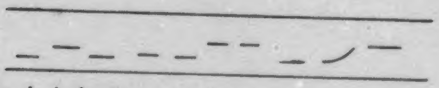
Zrobiłeś to?

Question tags.

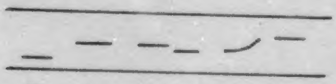
Any statement ending with a word *prawda, nieprawdaż* equivalent to English question tags corresponds to English question tag sentence type. The intonation of any interest to us is contained in the word *prawda* or *nieprawdaż* — the whole rest of the sentence, that is, the part preceding the tag has nothing to do with the intonation characteristic for questions. It is the tune of the tag which is important for our purposes. The attitude expressed may vary:


hope, interest, expectation
for agreement, confirmation

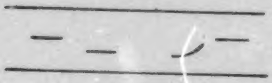
Odwiedzisz nas, prawda?


accusation
insistence

A jednak to zrobiłeś, nieprawdaż?


mocking, ironic

Ty wiesz lepiej, prawda?


demanding agreement

Nie wiesz, prawda?

Questions in English that will be discussed in the paper are also divided into six groups.

General questions.

Low falling nucleus.
ˎAre you ˌcoming? impatient
ˈAre you ˎgoing? impatient
ˌHave you ˌgot the ˎtickets? uninvolved
High falling nucleus.
ˌCan we ˌhave it ˋnow?
Rising falling nucleus.
ˌCan you be ^sure? mocking, suspicious
^Is he? mocking, incredulous

^Doesn't he?

Low rising nucleus.

ˏAre they coming?	insistent
ˏIs he?	doubtful, indifferent
ˈCan you ˏcome?	polite, interested
ˌCan you ˌcome ˏnext week?	bored, uninterested

High rising nucleus

This tune is essentially associated with questions.

ˊCoffee?	eagerness, brightness
ˊLike it?	enthusiasm or asking for repetition
ˊMonday?	
ˊJohn?	
ˌCan you ˊcome?	eager expectancy
ˌCan we afˊford it?	concern, apprehension

Multi-nuclear patterns.

Falling nucleus + fall.

ˋCan she ˋdo the ˋwork?

Falling nucleus + rise.

Areˋ sure that ˋGeorge and ˋMary ˏknow?

Rising nucleus + fall.

ˏCan you exˏpect them to ˏdo it aˋlone?	impatience

Rising nucleus + rise.

ˏWill you be ˏcoming to ˏsee us on ˏMonday?	unenthusiastic

Special questions.

Low falling nucleus.

ˎWhen?	curt
ˈWhat do you ˈwant to ˎdo?	blunt to strangers unemotional to intimates
ˈWhat are we ˌgoing to ˎdo?	bored

High falling nucleus.

ˋWhy?	surprise, indignation
ˋHow can she?	

Rising falling nucleus.

ˌWhat does his ^father ˌdo?	suspicious, indignant

Low rising nucleus.

ˏHow did you ˌ do it?	insistence; the lower, the start of a rise, the greater insistence

ˈWhat's the ˏtime?	polite inquiry
ˌWhat have you been ˏdoing?	unsympathetic, threatening cross-examination

High rising nucleus.

The tune associated with questions:

ˊWhen?	asking for repetition, incredulity

Multinuclear patterns.

Falling nucleus + fall.

ˋWhat do youˋ think we canˋ do?

Falling nucleus + rise.

ˋHow manyˋ seats were you ˋable to ˏget?

Rising nucleus + fall.

ˏWhat on ˏearth do you ˏthink you areˋ doing?	impatience

Rising nucleus + rise.

ˏWhen were you ˏthinking of ˏpaying it ˏback?	patronizing, sarcastic

Alternative questions.

There are three patterns of intonation of alternative questions.

High rise + high fall.

Will you have ˊthis or ˋthat one?	insistence on choosing one or the other
Do you prefer ˊplums or ˊapples or ˊpears or ˋcherries?	no other fruit available

High rise.

Would you like ˊthis or ˊthat?	or anything else
Can I show you any ˊsocks or ˊties or ˊhandkerchiefs?	or anything else you want to see (the list of alternatives is not full)

Level + high rise.

Can I show you any ˈsocks or ˈties or ˊhandkerchiefs?

(in rapid speech)

Interrogative repetitions.

Level + high rise.

Has ˈ Henry ˊseen them?
Are they in the ˊhall?
ˈWho took the ˈsilk ˊshirt?

The speaker wants to confirm his impression.

Has ´Henry ˈseen them?
Are they in the ″hall?
ˈWho took the ´silk ˈshirt?

Doubt about some word.

¯Has ″Henry ˙seen them? shock, surprise

Level+low rise.

Are they in the ˏhall? shock, surprise
ˌWho took the ˏsilk ˈshirt?

Echo questions.

High rising nucleus associated with questions.

It ´is?
ˈYou ´did? surprise, incredulity
You ˌactually ´saw him? indignation, horror, surprise

Question tags.

Low rising nucleus.

He's ˋgot one, ˏhasn't he? doubtful, asking for information

Low falling nucleus.

He ˎdoes, ˎdoesn't he? calmly presupposing agreement

High falling nucleus.

She ˋdoesn't, ˋdoes she? demanding agreement

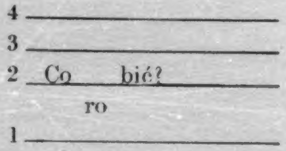
— — — — — — —

As we can see from the above discussion the intonation of questions in English and Polish has some certain common features. The accentual function of intonation may be quoted as the example, since there are certain common rules, one of which may be the change of pitch on the stressed syllable. English intonation, however, in its non-accentual function is to a certain degree fixed. Polish intonation depends largely on the speaker's emotional attitude and sometimes on his origin.

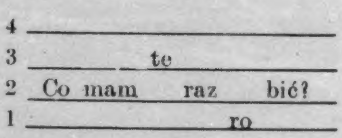
According to Gimson (1962 : 256ff), there is a special tune characteristic for English questions. This is the high rising tune, e.g. When? John? Coffee? According to Hall, (1964 : 114 ff) however, a rising pitch at the end can scarcely be described as the question signal. Opinions vary here, this is probably due to the important role of the attitudinal function of intonation. Many questions end in a fall. The changes may affect even the traditional division into:

general questions — falling intonation
versus special questions — rising intonation (examples on the preceding pages).

In Polish all the types of questions which usually end in a rise may end in a fall when there is a great emotional load, and vice versa those usually ending in a fall may end in a rise when the speaker wants to express his feelings fully. The low rising tune most characteristic for the majority of neutral questions is rather monotonous. For four levels possible:



only two are used. It may exceptionally happen that the third level is used when the speaker wants to give a word some extra meaning. Then, the accented syllable of this word may reach the third level:



The pattern of intonation depends to a great extent on the emotional attitude of the speaker, on the circumstances in which the phrase is uttered and also on the context. Neutral intonation used by one speaker in a given situation may become offensive when used by another, or when the utterance is directed to another hearer, e.g. quoted above: What do you want to do?

There are various means for signalling the attitude of the speaker. The speed at which the sequence is uttered, all sorts of unarticulated sounds accompanying the utterance, various sorts of pauses and junctions and sighs may add some extra meaning to what the speaker wants to convey. There may also be extreme high and low ranges of intonation, and continous level intonation which in both the languages may change the meaning of an utterance.

It should be stated here that the aim of the paper was to make some preliminary remarks concerning the intonation of Polish, rather than to discuss the problem in detail, since the research in this area is in its first stage.

The information concerning the accentual and non-accentual function of intonation in English has been based on O'Connor and Arnold (1961 : 7 ff) and Gimson (1962 : 256 ff), and the part on the accentual function of intonation in Polish on Jassem (1962 : 58 ff).

REFERENCES

Bazylko, S. 1971. "Zastosowanie zasad fonetyki korektywnej w nauczaniu ucznia polskiego wymowy języka francuskiego. Elementy prozodyczne II". *Języki obce w szkole*. 5. Warszawa: PZWS.

Dłuska, M. 1947. *Prozodia języka polskiego*. Kraków: PAU.

Gimson, A. C. 1962. *An introduction to the pronunciation of English*. London: E. Arnold Publ. Ltd.

Hall, R. A. 1964. *Introductory linguistics*. Philadelphia: Chilton.

Jassem, W. 1962. *Akcent języka polskiego*. Warszawa – Wrocław – Kraków: PAU.

Jones, D. 1956. *An outline of English phonetics*. Cambridge: Heffer.

Kingdon, R. 1958. *Groundwork of English intonation*. London: Longmans.

O'Connor, J. D. and Arnold, G.F., 1961. *Intonation of colloquial English*. London: Longmans.

Wierzchowska, B. 1966. *Wymowa polska*. Warszawa: PWN.

INTONATION OF IMPERATIVE SENTENCES AND REQUESTS IN POLISH AND IN ENGLISH[1]

BOGUSŁAW MAREK

Maria Curie-Skłodowska University, Lublin

The system of intonation patterns available in English has been subjected to far more detailed analysis than that of any other language. The result is that a non-British linguist can probably say more about English intonation than about contours occurring in his own tongue. The industry of teaching English, rapidly developing after the Second World War, has shown that mastering intonation patterns used in every-day speech is far more important than learning individual sounds. As a response to this discovery there appeared a number of textbooks of intonation. Despite their existence, a teacher of English phonetics is certainly aware of the enormous difficulties that foreign students find in learning intonation patterns. The reason for this is obvious. Intonation cannot be learned, or taught, by the same methods as sounds. It usually takes some time before a student manages to satisfactorily imitate a contour and a number of repetitions is required before he memorizes it. But this makes things even worse. An intonation pattern once learned will be used in a number of situations which allow an utterance of the type on which the pattern was practiced. This may cause some disturbance in communication. The effect of using a particular intonation pattern with some utterance may sometimes totally differ from the one intended by the speaker. The same holds true when a student without, or with little intonation training transfers contours from his mother tongue. Polish learners of English reveal a tendency to use rising or falling-rising intonation with

---

[1] English intonation patterns discussed below are those which are common in a dialect labelled by Wiktor Jassem (1952) as Educated Southern British. A short note on the intonation of General American is appended to the present study.

Wh-Questions:
ˈWhere do you ˏlive?
ˋWhat's your ˏname?

Such contours are possible in English but they are used in special situations when the expression of some particular attitudinal meaning is desired.

The possibility of there being identical intonation patterns in two different languages only complicates the matter. Every language makes use of its intonation contours according to a fixed system of rules[2]. The intonation of an utterance is an immediate consequence of the underlying, intended meaning of that utterance. In other words, intonation is subordinate to the deep semantic structure of every sentence[3]. A statement that intonation of an utterance expresses some attitude of the speaker must then be understood in the way that the deep structure of that utterance requires that one, particular intonation pattern in order to bring out the underlying meaning.

A comparison of English and Polish intonation patterns will provide more than mere indications for teachers. An analysis of various attitudes and emotions expressed by means of intonation will allow to discover rules governing the way in which native speakers of Polish and English use intonation contours available in both languages.

Imperative sentences provide perhaps the best material for such an analysis as they can range from polite, pleading requests to firm, serious commands or even threats. A description of the ways in which intonation serves to express a variety of "shades of meanings" will be preceded by a list of most commonly used types of imperative sentences and requests, classified according to their grammatical structures. There are at least three factors to justify this procedure. First, it will not always be possible to find pairs parallel to one another, second, not all intonation patterns available in both languages will be possible with some particular imperative sentences and third, one intonation pattern can express different attitudes with each of the enumerated types.

Type 1 — True Imperatives

In English such imperative sentences are introduced by a verb identical in form with bare infinitive. In Polish there is a separate form for verbs in the Imperative Mood. Examples: Go! Stay! Be careful! Leave it alone! Tell me the truth! Odejdź! Zostań! Uważaj! Zostaw to! Powiedz mi prawdę!

---

[2] Some attempts to discover such rules have already been made /an early article by Robert P. Stockwell (1964)/ but the treatment of intonation within the framework of Generative Phonology is by no means satisfactory.

[3] It has already been shown that the Surface Structure of an utterance does not provide a sufficient ground for the rules of the Phonological Component and that some deeper penetration is necessary (cf. Bresnan: 1971).

Type 2 — Infinitive

This type appears in Polish but not in English. Examples: Wsiadać! Wysiadać! Rozejść się!

Type 3 — Proszę (please)+Infinitive

Also found only in Polish. Examples: Proszę zaczekać! Proszę odejść! Proszę powstać!

Type 4 — Please+True Imperative

Such imperatives are very common in English and serve to express a request. Examples: Please help me! Pass me the salt please! Sit down please!

This construction is found also in Polish but because of its distinct function it is more convenient to classify it as Type 8a.

Type 5 — Sentences other than imperative used as commands

Type 5a — Statements in the future tense. Examples: You will do as I tell you! You will see the box into the van! Zaniesiesz ten list do pana X.! Pójdziesz po papierosy! Pójdziesz, pójdziesz!

Type 5b — Interrogative sentences used as imperatives

This type is found only in Polish. English sentences beginning with "Will you...", "Could you..." have been classified as Type 7 a. Examples: Pójdziesz stąd? Dajesz mu to czy nie?

Type 5c — Conditional sentences used as imperatives. Examples: Dałbyś mi wreszcie spokój! Uspokoiłbyś się wreszcie. You might try and make a little less noise!

Type 6 — Compound imperatives

Type 6a — with a co-ordinating conjunction. Examples: Come and have a look! Go and hang yourself! Chodź tu i popatrz! Zostaw to na stole i odejdź! Pójdziesz do kina i kupisz dwa bilety.

Type 6b — with a subordinating conjunction. Examples: Tell him the truth and you'll see. Spare the rod and spoil the child. Zjedz obiad to pójdziesz. Powiedz mu prawdę to zobaczysz. Zostaw go w spokoju bo dostaniesz.

Type 7a — Requests introduced by an auxiliary. Examples: Will you pass me the salt? Will you pass me the salt please? Could you help?

The corresponding construction in Polish is made by an interrogative form of the verb "móc". Examples: Czy możesz mi podać sól? Czy mógłbym prosić o sól?

Type 7b — Requests introduced by "won't" and "może"

Examples: Won't you sit down? Won't you come in? Może usiądziesz. Może pan wejdzie?

Type 8 — Emphatic Imperatives.

Type 8 a — introduced by "do" in English, and "proszę"+True Imperative in Polish. Examples: Do sit down! Do be careful! Do come in! Proszę cię daj mi spokój! Uważaj, proszę cię!

Type 8 b — Imperatives with a Subject. Examples: You shut up! You be quiet! You do it! Ty siedź cicho! Ty uważaj! Sam uważaj! Sam to zrób!

Type 9 — Set phrases used as polite requests. Examples: Would you kindly tell me the way to the station? Would you be so good as to bring me a cup of tea? Would you mind saying that again? Może będzie pan tak uprzejmy i poda mi tę książkę. Może pokaże mi pan z łaski swojej jakiś płaszcz.

The table on p. 165 presents intonation contours recognized in English and Polish which may appear with imperative sentences and requests. Each type of imperative receives the value "+" if a particular intonation pattern can be assigned to it, and "—" otherwise. "O" indicates that a given type is not found in one of the two languages.

It can be seen that most of the patterns appear both in Polish and in English. On the other hand some contours occur only in one of the languages It must be kept in mind that the present analysis is concerned with a material limited to imperative sentences and requests. The Rise-Fall "^", which does not appear with commands in Polish may very well appear with other utterances e. g., *Natu|ral\nie!* (Certainly!)

We are now in a position to examine various attitudinal meanings of imperative sentences and requests and the ways they combine with particular intonation contours. The type of notation used by David O'Connor (1961) and Leszek Biedrzycki (1972) will be followed in the present article.

Type 1 — True Imperative

Low Fall

The attitude carried by such imperatives will differ according to the shape of the pre-nuclear pattern.

Don't ˎdo it.
Don't ˎshow it to him.
ˎPass it to him.

With a low pre-nuclear pattern the attitudinal meaning of these sentences is described by O'Connor and Arnold[4] as calm, controlled, unemotional.

In Polish this intonation is used to express similar attitudes.

---

[4] Labels for other attitudes and also most of the examples illustrating English intonation of imperatives have been taken from this source.

Type of the imperative	Intonation contours occurring with Polish and/or English imperative sentences																																	
	(1) \		\ (1)		 /		/		∨		∧		| \		| \		| /		| /		\ .../		\ /...		\...\		 \...\		 /...\		| | \ / |		\ | \ / |	
	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	E
1	+	+	+	+	+	+	−	+	+	+	−	+	+	+	−	+	−	+	−	−	+	+	−	−	+	+	+	−	−	−	−	−	−	−
2	+	0	+	0	−	0	−	0	−	0	−	0	+	0	+	0	+	0	−	0	+	0	+	0	−	0	−	0	+	0	−	0	−	−
3	−	0	+	0	−	0	−	0	−	0	−	0	+	0	+	0	+	0	−	0	+	0	−	0	−	0	−	0	+	0	−	0	−	0
4	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0	−	0	+	0	−	0	+	0	−	0	−	0	−	0	−
5a	−	−	−	−	−	−	−	−	−	−	−	−	+	+	+	+	−	−	−	−	−	−	−	−	+	−	+	−	−	−	−	−	−	−
5b	+	0	+	0	+	0	+	0	−	0	−	0	−	0	−	0	−	0	−	0	−	0	+	0	−	0	−	0	+	0	−	0	−	0
5c	+	−	+	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	+	−	−	−	+	−	−	−	−	−	−	−	−
6a	−	−	+	−	−	−	−	−	−	−	−	−	+	+	+	+	−	+	−	−	−	+	+	+	+	+	+	+	+	+	+	+	+	+
6b	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	+	−	+	+	+	−	+	−	+	+	+	+
7a	+	−	+	−	+	−	−	−	−	−	−	−	+	+	+	+	+	+	−	+	−	+	−	−	−	−	−	−	−	−	−	−	−	−
7b	+	−	+	−	−	−	−	−	−	−	−	−	+	+	−	+	−	+	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−
8a	0	−	0	+	0	−	0	−	0	−	0	−	0	−	0	−	0	−	0	−	0	+	0	−	0	−	0	−	0	−	0	−	0	−
8b	−	−	+	−	−	−	−	−	−	−	−	−	+	−	−	−	−	−	−	−	−	+	−	−	−	−	−	−	−	−	−	−	−	−
9	−	−	+	−	−	−	−	−	−	−	−	−	+	+	−	−	−	+	−	−	−	−	−	−	+	−	−	−	−	−	+	−	−	−

ˎNie rób tego. /Don't do it/
Nie poˎkazuj mu tego. /Don't show it to him/
ˎPodaj mi to. /Pass it to me/

The above examples reveal an interesting property of Polish intonation of imperatives where the verb receives a kinetic tone unless it is a monosyllabic word preceded by NEG "nie" onto which then the tone is transferred. In English, sentences with this intonation would be interpreted as emphatic e.g., Don't show it to him!

If the pre-nuclear pattern is high, both Polish and English imperative sentences will sound serious, weighty or even impatient.

ˈSit ˎdown.
ˈDon't you ˎworry.
ˈTell me the ˎtruth.
¯Be ˎquiet for a ˌminute.

ˈDaj mi ˎspokój. /Leave me in peace/
ˈPowiedz mu, żeby mnie zoˈstawił w spoˎkoju. /Tell him to leave me in peace/

The same intonation may express in Polish a warm or even a pleading request and is often used when speaking to children. The patronising and soothing effect is strengthened by a repetition of the verb. An adult would find this intonation irritating.

¯No ˎchodź, ˎchodź. /Come on/
¯No ˎzjedz jeszcze troˌszeczkę, ˎzjedz. /Have some more/

The above sentence might be said by a mother encouraging her child to eat.

High Fall

English imperative sentences will show more warmth than those discussed above when said with a high-falling kinetic tone preceded by a low pre-nuclear pattern.

ˋDon't! /You'll hurt yourself/
ˌTry it aˋgain. /This time you may succeed/

In Polish, this intonation makes the imperative sentence with which it occurs more insistent, avoiding possible coldness carried by a low fall. It is usually used when the response should follow immediately.

ˋSiadaj tu! /Sit down here/
Zaˋczekaj! /Wait a minute/
ˌTylko ˋspróbuj! /Just try it and I'm not going to insist any more/

In some cases intonation may suggest that a given action is the only logical response to some situation. This is true both in English and in Polish.

/I wish Ann didn't dislike me so./
Well, ˌdon't be so \rude to her in future.
/Janek chce żeby mu pożyczyć tę książkę./
ˌNo to mu ją \pożycz.

A high pre-nuclear patterns is used with English imperative sentences of the type discussed when it is desired to suggest some course of action. Neither surprise nor demand can be felt with this intonation.

/The tea is too hot/
ˈPut some more \milk in it.
/The lid doesn't fit/
ˈTry ˈturning it the ˈother way \round.

This intonation pattern is not normally used in Polish with True Imperatives.

English commands may sound even more intense if a series of High Falls appears.

/What shall I do with it?/
\Give it to \me.
/Which one shall I buy?/
Buy which \ever you can \reasonably af \ford.

Contours consisting of a series of High Falls can appear in Polish when there is a repetition of the verb and is used as a response to, say, the listener's hesitating behaviour.

\Siadaj, \siadaj. /Sit down. Don't wait for me./
\Pokaż to, \pokaż. /Show it to me. Don't hide it./

Rise-Fall.

This intonation is used in English to disclaim responsibility or when refusing to be involved in some affair.

/Could you help?/
ˈYou fight your ^own ˌbattles!
But ˈdon't ˈsay I ˈdidn't ^warn you.

A note of hostility is not the only possible interpretation and it depends on the situational context as well as on the semantic contents of the sentence with which this intonation occurs. The same contour can be used when refusing credit for help or to express an insistent and somewhat reasuring invitation.

/Thank you very much./
Don't^mention it.
/May I borrow your pen?/
^Do!

Low-Rise.

The importance of the pre-nuclear pattern in expressing various attitudinal meanings is seen most clearly with this kinetic tone.

With low pre-tonic syllables English commands express a calm warning, exhortation, reproving criticism.

/I'm going to throw it away./
ˌDon't doˏthat!
ˏCareful! /You'll drop it./

In Polish this intonation is used to express a number of attitudes which result from the feeling of expected continuation carried by a rise of the contour. In imperative sentences containing two commands the first is often said with rising intonation when it expresses a condition or cause. Such instances can also be expressed by a simple True Imperative which then must be said with a terminal rise. The condition then sounds less definite and is understood as a suggestion rather than necessity.

ZaˏpytajÂ go. /Ask him and you'll know./
ˏSpróbuj. /Try and you'll see./

Simple imperative sentences, expressing an alternative or a cause are interpreted in Polish, when said with rising intonation, as strong, urgent warnings or even as threats.

ˏDawaj! /Give it to me or you'll be sorry./
ˏOdejdź! /Go away or.../

Contours with a high pre-nuclear pattern are found only in English and are used with imperative sentences to express a soothing and patronising attitude of the speaker. Children are often spoken to with this intonation but an adult person would find it irritating.

ˈCome ˏon. ˈCome to ˏDaddy.

High Rise.

This intonation is used with True Imperatives in English (but not in Polish) when querying the listener's command. The presence or absence of surprise depends on the shape of the pre-nuclear pattern.

/Take it home!/
Take it ˏhome.../...did you say?/
ˈTake it ˏhome!? /What for?/

Fall-Rise.

English True Imperatives, when said with this intonation, carry a note of reproachful concern or of urgent warning.

/I'm going right to the top./
Be ˇcareful!
/I can't do it./
You must ˇtry!

In Polish, depending on the situation, this intonation can express a polite request, a warning or may simply reveal the speaker's interest.

ˇDaj! /Give it to me./
Uˇważaj! /Be careful./
ˇPokaż! /Show it to me./

Fall + Rise.

This intonation is used both in Polish and in English to express a polite request. In Polish this pattern is preferred to other "polite" contours when there is a possibility of refusal which the speaker wants to prevent.

ˋTry not to be ˏlate.
ˋTell me the ˏtruth.
ˋPozwól mi jeszcze ˏzostać! /Let me stay here a little longer./
ˋPożycz mi jeszcze ˏjedną! /Lend me another one./

This contour is also used in some contexts to avoid a note of impatience or irritation which might be felt with some other intonation pattern.

ˋDon't make ˌmatters any ˌworse than they ˏare.
ˋDaj mi ˏspokój! /Leave me in peace./

Type 2 — Bare Infinitive.

This type, as mentioned above, is found only in Polish where it can be used when addressing a group of people. Such commands are either impolite or at most neutral as for their attitudinal meaning but when used to a single person, they may contain a note of contempt. The only people who can use this type of imperatives with impunity are perhaps ticket collectors, and even then it would be desirable to precede such commands with an introductory „proszę" /please/.

Possible intonation contours and attitudinal meanings will now be shown on the example of „Wsiadać!“ /Get in./

ˈWsiaˏdać! /The train is just about to pull out./
ˋWsiadać! or ˋWsiadać, ˋwsiadać! /Don't look around — said to somebody at a distance./
ˎWsiadać! or ˎWsiadać, ˎwsiadać! /The same as above — said to some people close by./

Type 3 — Proszę + Infinitive.

This type is used in Polish either when addressing a group of people or a single person, usually an adult, when it is desired to avoid a straightforward form with an implied "you". The word "proszę" is stressed and may (as will be shown later) receive a kinetic tone.

Low Fall.

The attitude carried by this intonation can be described as calm and unemotional although sometimes, when preceded by a low pre-nuclear pattern, cold with a note of impatience or even hostility.

ˈProszę ˎusiąść. /Sit down — a formal invitation./
ˌProszę ˎusiąść. /Sit down — said by a manager to a clerk who is going to be dismissed on account of bad behaviour./

Despite their polite form such imperative sentences may be used as urgent, serious commands.

ˌProszę stąd naˈtychmiast ˎwyjść! /Leave the room at once./

High Fall.

A number of attitudes can be expressed with this intonation.

ˌProszę ˋusiąść. /Sit down — if you say you're tired. Don't complain./
ˈProszę ˋusiąść. /Polite, warm and encouraging invitation./
ˈProszę to ˋzabrać. /Yes, take it away — encouraging and reasuring a person who hesitates what to do./
ˌProszę stąd ˋwyjść! /Go out! — an impatient command./

Low-Rise.

This contour is used when there is a series of commands of the type described. A doctor may use it when speaking to a patient.

ˈProszę się poˏłożyć. /Please lie down./
ˌProszę się odwrócić na ˏplecy. /Please turn on your back./
ˈProszę poˏpatrzeć na mnie. Dzięˎkuję. /Now look in my face. Thank you./

Imperatives of this type will sound more urging with a kinetic tone on the word "proszę" and will express a number of attitudes.

ˎProszę ˌusiąść. /A command rather than an invitation with a note of impatience./
ˋProszę ˌusiąść. /More insistent but less hostile than the above example./
ˋProszę mi ˌpomóc. /Please help me — a pleading request/

Yet in some contexts the same contour can bring out a great degree of hostility and may reveal the speaker's intention to get rid of some intruder.

ˋProszę stąd ˌodejść. /Please go away./

Several attitutes can be expressed if both "proszę" and some other word in a sentence receive a kinetic tone.

ˋProszę mi nie przeszˏkadzać. /Please do not disturb — a polite but insistent request with a note of impatience./
ˋProszę mi ˏpomóc. /Please help me. A request with a note of impatience that such an idea did not occur to the listener./
ˏProszę mi nie przeˋrywać. /Please don't interrupt, I was just going to say that. A note of accusation./
ˏProszę mi nie przeˎrywać. /More hostile than above, possible reminder of good manners./

Type 4 — Please+True Imperative.

Such sentences are very common in English. The word "please" can either be placed before the imperative sentence or follow it. The former instance adds some degree of emphasis and in the latter case, "please" has a function identical with that of "will you" in the same position where it softens the command and turns it into a request.

An obvious parallel can be observed between Please+Infinitive in Polish and Please+True Imperative in English. In Polish "proszę" can also be followed by a True Imperative yet there are some reasons which justify a rather different treatment of such constructions. An inspection of some examples should make this assumption clear.

/1/ Proszę + Infinitive.
1a. Proszę usiąść.
* 1b. Proszę cię usiąść.
* 1c. Błagam usiąść.
* 1d. Błagam cię usiąść.

(2) Proszę + True Imperative.
2a. Proszę usiądź.

2b. Proszę cię usiądź.
2c. Błagam usiądź.
2d. Błagam cię usiądź.

It seems that there are certain differences in the way the word "proszę" behaves in (1) and (2). When followed by a True Imperative it can take an Object (2b), or can be substituted by some other word, say, "błagam" meaning "I beg..." (2c), or both (2d). This may allow a conclusion that "proszę" in (1) which equals "please" when followed by a True Imperative in English, is different from that in (2). This in turn makes it advisable to treat the construction under discussion as of a different type. As for the semantic interpretation of such imperatives they resemble rather those emphatic English commands (requests) which are introduced by the auxiliary "do", e.g. "Do be careful!" "Oh, do shut up!"

As mentioned above, the word "please" in English, when followed by a True Imperative functions approximately in the same way as "proszę" with the infinitive in Polish. It can be stressed and may, unless following an imperative receive a kinetic tone. Attitudinal meanings of such sentences are parallel to those carried by simple True Imperatives and do not require any special attention.

ˈPlease sit ˋdown. (=ˈSitˋdown.)
ˈSitˇdown ˌplease. (=ˈSitˇdown.)

Type 5a — Statements in the Future Tense.

Some such declarative sentences can function as Imperatives both in English and in Polish. They are used to subordinate persons. In English these commands are serious and firm and receive an intonation which expresses such attitudes for other imperatives, that of a Low Fall preceded by a high prenuclear pattern.

You will ˈsee the ˈbox into the ˎvan.
You will ˈnot ˈgive me ˎorders.
You will ˈdo it at ˎonce.

When it is desired to express some additional emphasis, say, for contrast, the main point of attention will be brought out by a High Fall lowering at the same time the pre-nuclear pattern.

You will ˌdo it at ˋonce. /And not later on./

It seems that such commands are more widely used in Polish. They are often preceded by an introductory imperative of the type "Listen John!" or "Look here John".

Zaˈniesiesz ten ˈlist do pana ˎX. /Take this letter to Mr. X./
ˈPójdziesz po papieˎrosy. /Go and get some cigarettes./
ˋPójdziesz. ˋpójdziesz. /Meaning “of course you will” — used for example if the above command was answered “I will not.”/
ˊPójdziesz. ˎpójdziesz. /=But stop nagging./

Type 5b — Interrogative sentences.

Questions, in some situations, can also function as imperatives in Polish[5]. Whatever intonation contours accompany such commands they always sound impolite and are used as serious orders often showing impatience, irritation or annoyance of the speaker.

ˎPójdziesz stąd?! /Clear off!/
ˋPójdziesz stąd?!
ˊPójdziesz stąd?!

The above commands are often used to, say, a dog which is making a nuisance of itself, the first with a note of hostility and the latter two showing some degree of impatience.

With rising intonation such imperatives are understood as threats and can be followed by a negative eliptical question "czy nie?" meaning "or not?" which then receives a falling tone.

ˏPójdziesz stąd?! /Warning./
ˏDajesz mu to czy ˎnie? /Are you going to give it to him or not? =You'll be sorry if you do not give it to him at once./
ˏDajesz mu to czy ˋnie? /The same as above, showing a greater degree of irritation./

Type 5c — Conditional sentences.

Such sentences are more widely used in Polish than in English. They are used as mild imperatives, requests, suggesting rather than demanding. Such sentences have the underlying meaning "you might just as well..." and are often followed by a question meaning more or less "don't you think" or "will you".

ˎPoszedłbyś ze mną, ˏco? /Keep me company, will you?/
ˎDałbyś mi spokój, ˏdobrze? /Leave me alone, will you?/

The above sentences can be made more insistent when said with a High Fall and sometimes, but not necessarily, they show impatience.

---

[5] English requests beginning with an auxiliary (Will you...?, Could you...?) have been classified here as of a different type and are dealt with later.

ˋDalbyś mi, spokój! /Insistent, with a note of irritation./
ˋPoszedłbyś, ze mną. /I think it would be great if you could come with me./

Similar sentences appear also in English where they are introduced by the auxiliary "might" following the Subject. Such imperatives function as mild commands.

You ˋmight ˌtry to ˌbe a ˌlittle ˌmore ˏquiet. /A request/
You ˋmight ˌtry to ˌbe a ˌlittle ˌmore ˋquiet. /A suggestion, more insistent than that above./

Type 6a — Compound Imperative Sentences with a co-ordinating conjunction.

A co-ordinating conjunction can combine any two imperative sentences discussed so far provided they are both of the same type. The intonation and attitudinal meaning of such commands are parallel to those of the corresponding simple imperative sentences and therefore need not be discussed here in detail. There is perhaps one problem which deserves mention. When necessary, intonation can serve to indicate the order which the two actions should follow. This can be achieved by assigning rising intonation to the first imperative sentence and falling to the second.

ˏPodejdź tu i ˈpowiedz jak się naˎzywasz.
ˈCome overˏ here and ˈtell me your ˎname.
ˏUsiądź i zaˋczekaj na ˌniego.
ˈSit ˏdown and ˋwait for him.

Type 6b — Compound Sentences with a subordinating conjunction.

These commands deserve more attention. They are used when one action /usually the second/ is a consequence of the other, or, when the first action is a condition on which the second action can happen. Various attitudinal meanings and the ways they are brought out will now be shown on the following pairs of examples:

Tell him the truth and you'll see.
Powiedz mu prawdę to zobaczysz.
/What will he do if I tell him the truth?/
ˋTell him the ˌtruth and you'll ˋsee. / There is no use trying to guess./
ˋPowiedz mu ˌprawdę to zoˋbaczysz. /I wouldn't risk it if I were you. Tell him the truth and you'll be sorry./
ˈTell him theˏ truth and you'll ˋsee. /I think you should tell him the truth in any case./
ˈPowiedz muˏ prawdę to zoˋbaczysz. /Don't ask me what to do. Tell him the truth and you will know./

Compound imperatives the first part of which contain a condition are far more widely used in Polish than in English. Sentences like "Spare the rod and spoil the child" in spite of their similarity to imperatives are used as common sayings or proverbs rather than commands. It is quite common to address such orders to subordinate persons in Polish. They can be made more, or less categoric depending on the intonation of the part expressing condition.

ˈZjedz ˏobiad to ˎpójdziesz. /Eat your dinner first and then you can go./
ˈZjedz ˋobiad to ˋpójdziesz. /More warmth than above./

Type 7a — Requests introduced by an auxiliary.

The grammatical structure of requests, both Polish and English, is normally the same as that of General /Yes-No/ Questions. This is perhaps due to the fact that it depends on the listener's will whether a given action happens or not. This is also the reason why the number of possible intonation patterns occurring with requests is limited, although it is not unusual to hear a polite request with the intonation of a serious command.

In English, requests are introduced by an auxiliary and can have various attitudinal meanings depending on the intonation assigned to them. In Polish requests are made by questions with the verb "móc" /can/, or are introduced by "może", meaning more or less "maybe", "perhaps".

ˈWill you ˈpass me the ˏsalt? /A polite request./

"Please" is often added in English to avoid possible ambiguity of such sentences and to indicate that a request is meant and not a question.

ˈWill you ˈpass me the ˏsalt, please?
Czy ˈmogę ˈprosić o ˏsól?

A rather formal request results in Polish when it is introduced by "może".

ˈMoże mi pan poˈkaże tę ˎdrugą ˌksiążkę? /Could you show me the other book, please?/

Type 7b — Requests introduced by "won't" and "może".

Some requests are used as invitations. They are then introduced by "won't" in English and "może" in Polish and can express various attitudes.

ˈWon't you come ˏin? /A polite invitation./
ˈWon't you come ˋin?
ˈMoże pan ˎwejdzie.
ˈMoże pan ˋwejdzie. /Less formal than above./
ˌMoże pan ˎwejdzie. /With a note of hostility/

Type 8a — Emphatic Imperatives.

The auxiliary "do" which may introduce an imperative sentence makes it very insistent and urgent.

ˋDo be ˌcareful! /An urgent request./
ˋDo be ˏcareful! /Showing more warmth than the above sentence./

The same effect can be achieved in Polish in a rather different way, mainly by means of "proszę" or "proszę cię" which can be placed in front of a True Imperative, or follow it. Such sentences can range, with different intonation patterns, from a pleading request to a very firm, serious or even hostile command.

ˋProszę cię ˋpożycz mi to. /Lend it me — a pleading request./
ˈProszę cię ˎusiądź! /Sit down — impatient command./
ˈProszę cię ˋusiądź! /more insistent than above./
ˌProszę cię ˎusiądź! /A warning./

Type 8b — Imperatives with a Subject.

Such commands are always emphatic and more insistent than imperatives without a Subject. Possible attitudinal meanings of such sentences are similar to those carried by simple True Imperatives if the kinetic tone is placed on the verb or on some other word. It is also possible to assign the main stress to the Subject "you" when it is desired to point out that the listener himself is to perform some action. In Polish in such cases, the Subject "ty" will change into a reflexive "sam".

ˈYou ˈshut ˎup! /Insistent, warning./
ˋYou shut ˌup! /A possible response to the above command, a protest./
ˈTy siedź ˎcicho! /Insistent, warning/
ˋTy siedź ˌcicho!
ˋSam siedź ˌcicho! /Both meaning "ˋYou shut ˌup!"/

Type 9 — Set phrases used as Requests

Such sentences can be made less or more insistent, less or more formal, depending on the intonation contour assigned to them.

ˈWould you ˈkindly ˈtell me the ˈway to the ˏstation?
ˈWould you be so ˈgood as to ˈmake some ˎsandwiches?

/The above example is a possible answer to the question: "Do you need any help?"/

ˈMoże będzie pan uˈprzejmy zaˎczekać tu ˌchwilę. /A polite but formal request./

If a High Fall is placed on the word "może", the request will remain polite but will become more insistent, suggesting a course of action.

ˋMoże z ˌłaski ˌswojej poˎczeka pan tu ˌchwilę. /Would you mind waiting here a minute?/

The High Fall placed on some other word may add a note of reproach to such requests.

ˌMoże mi pan z ˌłaski ˌswojej pokaże jakiś ˋinny ˌpłaszcz. /Would you kindly show me some other coat. Can't you see that this one doesn't fit?/

The examples presented so far make it possible to answer a pivotal question. Is English intonation totally different from that of Polish? If the answer is "yes", then no further discussion is necessary. Yet the fact that it was possible to analyse various types of Polish and English imperative sentences in relation to one and the same set of intonation contours suggests that any straightforward answer would oversimplify the matter.

There are several properties which both Polish and English intonation patterns accompanying commands have in common. As shown above, certain contours do not appear with some particular types of imperatives; the shape of the pre-nuclear pattern affects the so-called attitudinal meaning of a sentence; some contours add the same emotional colouring to sentences of both languages /for example, polite requests can have a contour containing a fall followed by a rise/; emphasis for contrast can be achieved by assigning a High Fall to the main point of attention; one intonation pattern can be used to express several attitudinal meanings. Yet in most cases two imperative sentences of a given type said with one of the enumerated intonation patterns expressed different attitudes in both languages.

All these facts seem to suggest that the systems of intonation patterns available in Polish and in English are similar and the main difference consists in a different application of those patterns. This can be shown on several examples.

A contour containing a high pre-nuclear pattern followed by a low fall makes English commands serious, weighty, insistent.

ˈSit ˎdown!
ˉBe ˎquiet!

The same is true about commands in Polish, provided that the pre-nuclear pattern contains stressed syllables.

ˈTylko ˎspróbuj.
ˈDaj mi ˎspokój.

With unstressed syllables in the pre-nuclear pattern, this intonation is used in Polish to express a pleading request addressed to a child.

¯Tylko ˎspróbuj.
¯No ˎchodź, ˎchodź.

This effect is achieved in English by means of a totally different contour, mainly that, containing a low rise.

ˈCome ˏon! ˈCome to ˏDaddy!

A Low Rise used with a Polish imperative sentence may turn it into a threat.

ˏDawaj!
Oˏdejdziesz od tego ˈokna?

The same contour is also used to make a suggestion, disclaiming at the same time responsibility.

ˏSpróbuj.
Zaˏczekaj.

These examples make it now possible to "discover" one more, and perhaps most important, property of intonation. Intonation is not an independent system which can modify or change the meaning of a sentence with which it occurs. It reflects the underlying, intended meaning and is subordinate to it in the same way as sentence stress is dependent on the deep structure. There is no separate "normal" intonation pattern for imperative sentences. Each command will have that intonation which can bring out the desired meaning. A sentence like "Give it to Mary" is a surface structure derived from several underlying representations each of which will require a separate intonation pattern. The intended underlying meaning of the sentence below can be made clear only if the main point of attention receives a High Fall.

Give it to Mary /and not to someone else./
ˈGive it to ʺMARY.

The expression of the same meaning without this intonation would require an additional information, "Give it to Mary and not to someone else".

The function of intonation in expressing various attitudinal meanings should now be clear. Some elements of the underlying semantic structure can be replaced by an appropriate intonation pattern and then deleted. And it is in this sense that the statement made above, "Polish and English intonation operates according to a fixed system of rules", should be understood.

The rules of intonation assignment differ not only from language to language but also dialect to dialect. This can be shown by an inspection of some intonation patterns occurring with imperative sentence in American English (General American).

American intonation shows certain "deviations" from contours found in British English, which may lead to different interpretations of the same intonation pattern. In American English for example, contour 2 - 4[*] appeares with sentences to which the rules of British English would assign a Low Fall /3 - 4/.

G.A. *Tell me the truth.*
3 - 2 - 4
B.E. *Tell me the truth.*
2 - 3 - 4

American intonation of the above sentence is used in British English when it is desired to concentrate the listener's attention on some particular word, in cases described as emphasis for contrast, e.g., ˈTell me the ˵TRUTH.

The contour containing a high pre-nuclear pattern followed by a Low Rise is used in British English when speaking to a child, but, as indicated above, would sound irritating to an adult. The same pattern is described by Pike as light and cheerful and avoids the brusqueness carried by falling contours. (cf. Pike; 1945 : 51).

G.A. *Come on.*
2 - 4 - 3

The pattern which, according to Pike, is used when addressing children is that containing a High Fall ranging from pitch level 1 to 2 (1 - 2).

G.A. *Come on. Come to Daddy.* (cf: Pike, 1945 : 80)
3 - 1 - 2/3 - 1 - 2

It would be interesting to present some such differences found in various dialects of Polish but the limited material on the subject does not make a sufficient ground for such an attempt.

REFERENCES

Bresnan, J. 1971. "Sentence stress and syntactic transformation". *Language* vol. 47. No 2.
Jassem, W. 1952. *Intonation of conversational English*. Wrocław: WTN.
O'Connor, D., Arnold, G. 1961. *Intonation of colloquial English*. London: Longmans, Green and Co Ltd.
Pike, K. L. 1945. *Intonation of American English*. University of Michigan Press Ann Arbor:
Stockwell, R. 1964. "The place of intonation in a generative grammar of English". *Readings in applied linguistics*. Ed. by Harold B. Allen. New York: Meredith.

---

[*] This system of notation is used by Pike, K. L. (1945).

INTONATION OF COMPOUND SENTENCES IN ENGLISH AND POLISH

ALEKSANDRA MIESZEK

Adam Mickiewicz University, Poznań

COMPOUND SENTENCES IN ENGLISH

1.1. A compound sentence may be defined as a group of two or more principal (independent) clauses (cf. E. Harman 1950 : 42). The relation of parataxis holding between them is primarily based on the structural and secondarily on the semantic properties of the combined clauses (cf. K. Polański 1967 : 46). Constituent clauses must be "equivalent as to grammatical function and bound together at the same level of structural hierarchy" (cf. S. Dick 1968 : 25) and they must be homogeneous as to their content.

Taken separately, they may function as independent sentences. Being constituent parts of the compound structure, however, they define one another to such an extent that the proper meaning they convey is fully comprehensible only in the view of their mutual relations (cf. Z. Klemensiewicz 1961 : 70).

The constituent parts of the compound sentence are linked either by means of connectives (or prepositional phrases) or by characteristic intonation and tonal junctures.

1.2. Lexical means of connecting the clauses. The relations holding between the clauses of the compound sentence determine its communicative function. Grammarians distinguish five types of paratactical connection in respect to English compound sentences:

Copulative connection — the contents of all the constituent clauses of the compound sentence coesixt in time and space (cf. Z. Klemensiewicz 1961 : 77).

Disjunctive connection — the contents of the combined clauses is mutually exclusive.

Adversative connection — a contrast is set between some of the items of co-ordinating clauses.

Consecutive connection — the contents of the second clause result from that of the preceding clause.

Causative connection — the joined clause serves an explanatory function in reference to the idea of the preceding clause.

Co-ordinating conjunctions, particles or adverbs, and prepositional phrases constitute the lexical means of indicating the relations between the clauses of a compound sentence.

Copulative connection is expressed by such connectives as — and, both ... and, not only.. but also, nor, neither, then, moreover, besides, thus, also, too, etc. Disjunctive connection is realized by — or, either ... or, else, otherwise; adversative connection is denoted by — but, not that, while, whereas, however, yet, still, only, etc. Causative and consecutive co-ordinations make use of — for, so, so that, accordingly, therefore, then, etc. Since the meaning of the last two types of compound sentences is similar, they are often described together.

The prepositional phrases employed in the function of connectives are, for all that, finally, at least, on the contrary, that is, .. etc. (cf. N. Kobrina 1965).

Not all kinds of compound sentences can be formed without any lexical link. When there is no danger of misunderstanding, however, the relations between the co-ordinate clauses are expressed asyndetically. In such cases intonation and pauses join the constituent clauses of the sentence, functioning as indicators of the connection.

1.3. Intonation of the compound sentences. Intonation used with the compound sentences corresponds with the feelings conveyed by the contents of the co-ordinate clauses. Besides, its function is to emphasise the contrastive meaning of the clauses or to stress the character of their mutual dependence.

Compound sentences of copulative type may take a falling intonation (Tone II) devoid of emotion, objective and firm, to point out considerable independence of the principal clauses.

The ˈreferee ˈblew his ˋwhistle / and the ˈgameˋ started.
He ˈworks in an ˈoffice ˈall ˋday / and ˈspends his ˈevening ˋhome.
It's ˈgetting ˋdark; / let's go ˋhome. (cf. A. Reszkiewicz 1965 : 94).

Words that serve an additive function, can be said with the rising intonation (Tone I), except the closing item, which takes a falling tone.

He inˏvites his ˏfriends to ˏtea, /enterˏtains them, / and ˏtries to be an ˈideal ˋhost.

If the compound sentence consists of more than two clauses, the combination of tones is applied.

IL / IL / IL
He came ˏlate, / and ˌleft early / and ˌwouldn't ˌspeak a ˏword (cf. R. Kingdon 1958 : 90).

Tone I stresses the feeling of disappointment, and complaint.

IL / IL / II
Instead of ˏwaiting, / she ˈwent to the ˏwardrobe / and ˈtook out her ˈbest ˈcoat and ˋskirt (cf. R. Kingdon 1958 : 92).

II / II / IL
I ˈthink you'll ˋlike it / and ˈask for ˋmore / when you've ˏtried it (cf. R. Kingdon 1958 : 91).

II / IL / II
ˈMonday ˌcame at ˋlast; / the ˈrain ˏfell again, / and the ˈwind ˎhowled (cf. R. Kingdon 1958 : 91).

If one of the coordinate clauses contains insinuation, and other one is an ordinary statement, they take different tones. Tone III (falling-rising) serves best the purpose of rendering some kind of hesitation, warning, reserve or suggestion, while Tone II, states the fact objectively. The combination of Tone III /Tone II, therefore, will be used with the described type of a compound sentence.

It ˋcosts ˏmore / and it's ˈless a‶musing.
ˈThese are ˇmine, / and ˈthose are ‶yours
The ˈmen were in ˏtime / and ˈso was ‶I (cf. R. Kingdon 1958 : 88)

In case of the enumeration of alternative items, Tone I (rising) is placed on each of them except the last one, for which Tone II is reserved to mark the completion of the list.

In the afterˌnoon I ˌgo for a ˏwalk, / ˌvisit my ˏfriends, / or ˈstay at ˋhome.

Coordinate clauses with adversative connection convey contrastive feelings or connotations and Tone III may be used either with both parts or the sentence or may be applied to one clause only.

She ˈasked me to ˇstay / but I ˈcouldn't spare the ˋtime (cf. A. Reszkiewicz 1965 : 10).

I ˈthought I ˏcould / but I ˋcan't.
It's ˈmuch more exˏpensive / but it's more ˇelegant (cf. R. Kingdon 1958 : 88).

It's very ˇkind of you / but you must be ˇcareful (cf. R. Kingdon 1958 : 89).
I'll do it ˇlater / I ˈcan't do it ˇnow.
I ˇsaw it / but didn't ˇread it (cf. R. Kingdon 1958 : 204).

In the first instance, Tone III stresses the reservation implied in the clause; In the last example, the joined clause contains an insinuation.

Compound sentences containing some consecutive or causative relations take either Tone II or the combination of Tone I / Tone II.

We'll ˈcome ˋearly, / so that there'll be ˈtime for a ˋgame.
It was ˏSaturday, / so they were ˈearly ˈhome from ˋschool (cf. R. Kingdon 1958 : 203).

Co-ordinating conjunctions do not usually take a sentence stress, but if there is need for emphasizing the relation between the clauses they join, the stress is applied to them.

I must go ˏout / al ˋthough it's raining.
I must go ˏout / even if it's ˋraining.
I ˋmust go ˏout / howˌever ˌmuch it's ˌraining (cf. R. Kingdon 1958 : 204).

In other cases the conjunctions are not stressed even if they appear in the initial position.

Whereas ˈI was deˏlighted, / ˈyou were apˋpalled (cf. R. Kingdon 1958 : 203).

COMPOUND SENTENCES IN POLISH

2.1. The type of connection between the constituent parts of the compound sentence determines its communicative role, which is taken as the criterion of classification of the paratactical constructions.

Three main types of these constructions are usually distinguished — copulative, adversative, and alternative — admitting a few subtypes for each of them (cf. K. Polański 1967 : 47).

Z. Klemensiewicz (1961 : 76 - 77) divides Polish compound sentences with respect to the form of link between the constituent principal clauses into two groups — those which make use of a conjunction and those which lack any lexical means of connection; considering the meaning the paratactical constructions convey, he distinguishes five types of compound sentences — copulative, adversative, disjunctive, consecutive and inclusive.

Adversative connection — a, ale, lecz, owszem, jednak, natomiast, przecież.
Disjunctive connection — albo, lub-czy, albo-albo, już to — już to, to — to.
Consecutive connection — więc, toteż, tedy, zatem, dlatego, to, i, a.
Inclusive connection — czyli, mianowicie, to jest, tzn.

2.2. Intonation. No thorough investigation into the intonation of Polish has been carried out so far. It is a recognized fact, however, that tonal junctures (pauses) and sentence accent, which is the tonal unit, are two important factors in the prosody of this language (cf. W. Jassem 1959 : 269) As a rule stressed syllables are pronounced with a rising melody ant these which do not bear any stress are said with a falling tone. In the final positions even stressed syllables tend to take a falling tone when the contents of the last word are of no particular importance for the sentence as a whole (cf. M. Dłuska 1947 : 24).

The melody of the Polish compound sentences may vary according to their implied connotations but normally it consists of the combination of two tones, tone I tone II (rise-fall), the former stressing the anticipation of some additional thought, the latter marking the completion of the sentence. Other possibilities are also acceptable, but then they expose particular relation between the joined clauses or emphasize the insinuation contained in one of the clauses.

ˌUmie ˌgrać na giˏtarze / ˌpięknie ˏśpiewa / i komponuje pioˋsenki.

The pauses following each clause indicate the lack of a strong semantic link between the joined clauses.

If Tone IL is applied to the whole sentence, it creates an impression that the thought is incomplete and provokes the speaker or it sounds like boasting.

ˌByłem we ˏFrancji, spęˌdziłem ˌmiesiąc w Iˏtalii / ˌznam doskoˌnale ˏGrecję.

Since the clauses with the adversative and disjunctive relations convey two contrastive or exclusive ideas, the pause which separates them is very prominent.

Obieˈcywał ˋdużo / tymczasem ˈnic nie ˋzrobił (cf. Z. Klemensiewicz 1961 : 79).

Nauczyˌcielka usiłoˌwała ˌdalej prowaˌdzić ˏlekcję / ale ˈraz za ˈrazem ˈzrywał się ˋhałas.
Wieczoˌrami, ˌczytam ˏksiążkę / lub ˌgram na forteˋpianie.

The connection between the constituent clauses of the consecutive compound sentence is closed and the usual intonation pattern Tone I /Tone II is used to render it.

Nie ˌma pasˏterza, / to i ˈowca ˋgłodna (cf. Z. Klemensiewicz 1961 : 80).
Nie ˏprzyszedł, / wobec tego nie czeˈkamy ˋdłużej (cf. Z. Klemensiewicz 1961 : 81).

Proˈsiłeś ˋmnie, / przyˋszedłem.

The joined clause in the inclusive compound sentence gives an explanatory note on the fact contained in the first part of the sentence and frequently the connective is stressed; if the clauses are not separated by any lexical means, a longer pause is the phonological indicator of the link. In that case the item that precedes the juncture will have a falling intonation. In writing, this pause is marked by a semi-colon or a colon.

Rzecz cieˋkawa: / z upadkiem imˏperium zmieˈnili się ˋludzie.
Intereˌsuje go ˌkilka zaˌgadnień językoˋznawczych, / a mianoˏwicie, hisˌtoria ję̨ˏzyka, / porówˌnanie ˏstruktur / iˋ inne.

The expressive factors may bring about a change in the melody of the sentence. Different items can be accented, according to the degree of importance in the contents of the whole structure. The intonation is closely connected with the meaning conveyed by the sentence and reflects the emotional aspect of the utterances.

COMPARISON

1) He inˌvites his ˌfriends to ˏtea / and ˏtries to be an idealˋhost.
Zaˌprasza swoich przyˌjaciół na herˏbatę / i ˌstara się ˌbyć ideˌalnym gospoˋdarzem.
2) He ˌcame ˏlate / and ˌleft ˏearly / and ˌwouldn't speak a ˏword.
ˌPrzyszedł ˏpóźno, / ˌwyszedł ˏwcześnie / i nie poˌwiedział ani słowa.
3) Instead of ˏwaiting / she ˌwent to the ˏwardrobe / and ˈtook out her ˈbest ˈcoat and ˋskirt.
Zamiast ˏczekać, / poˌdeszła do ˏszafy / i wyˌjęła swój najˌlepszy ˌpłaszcz i ˋspódnicę.
4) These are ˇmine / and ˈthose are ˋyours.
Te są ˌmoje, / a te sąˋtwoje.
5) She ˈasked me to ˇstay / but I ˈcouldn't spare theˋtime.
Proˌsiła, żebym ˏzostał, / ale nieˋmogłem ˌpoświęcić ˌczasu.
6) I'll do it ˇlater / I can't do it ˇnow.
ˈZrobię toˋpóźniej, / nieˋmogę ˌteraz.

(1) Combination of Tune I / Tune II is the usual intonation pattern used with two clause-compound sentence in Polish and English. The rise expresses the anticipation of additional information and the fall closes the sentence. In most cases the sense-group bearing the Tune I is not grammatically complete (cf. R. Kingdon 1958 : 74). Both in English and Polish compound sentences, a slight pause sets a boundary between the joined clauses.

(2) The rise of the voice at the end of each clause stresses the incomplete thought, makes the sentences sound like series of complaints, and strikes a disappointing note.

(3) The pattern IL / IL / II L is typical for the sentences of both languages

since it expresses the logical relation between the succesive clauses — anticipation, incompletness, completion.

(4) In English the clause that contains an insinuation takes Tune III and in Polish Tune I/II convey the same connotation. In Polish the last word of the first clause is accented and as a consequence, the stressed syllable is lengthened.

(5) If there is no conjunction to link the clauses, a pause distinguishes them. Again, Polish makes use of a falling intonation rather than a falling-rising one to express the connotation of the sentence.

CONCLUSIONS

1.1. The intonation of Polish compound sentences differs from the melody of English ones only in some respects. In Polish, accent and junctures play an important role. The pauses between the joined parts of the sentence vary as to their length in accordance with the type of connection. The looser it is, the more prominent the pause. The last word of the non-final clause is usually stressed and it results in the rising of the voice; the item standing at the end of the sentence is normally pronounced with a falling intonation, since it is of no particular significance in the sentence.

Polish compound sentences do not have as much variety of tones as the English ones do.

In both languages, intonation as well as pauses at the boundaries between the co-ordinate clauses play an essential role mainly in the asyndetic structures. Therefore they are the only indicators of the connection whenever the co-ordinating conjunctions are used, the function of intonation is of secondary importance.

It is evident, however, that various kinds of intonation patterns expose different feelings and connotations that add considerably to the literal contents of the sentence. Therefore the expressive function of intonation is relevant in any case.

REFERENCES

Bartnicka-Dąbkowska, B. 1968. *Gramatyka opisowa języka polskiego*. Warszawa: PZWS.
Dik, S. 1968. *Coordination*. Amsterdam: North-Holland Publishing Company.
Dłuska, M. 1947. *Prozodia języka polskiego*. Kraków: PKJ.
Harman, S. 1950. *Descriptive English grammar*. Englewood Cliffs: Prentice-Hall. Inc.
Jassem, W. 1959. "The phonology of Polish stress". Poznań: Reprinted from *Word*. 1959. New York.

Jassem, W. 1952. *Intonation of conversational English*. Wrocław: WTN.

Kingdon, R. 1958. *The groundwork of English intonation*. London: Longmans.

Klemensiewicz, Z. 1961. *Zarys składni polskiej*. Warszawa: PWN.

Kobrina, N., Korneyeva A. 1965. *An outline of modern English syntax*. Moscow: Higher School Publishing House.

Polański, K. 1967. *Składnia zdania złożonego w języku górnołużyckim*. Wrocław—Warszawa—Kraków: Komitet Słowianoznawstwa PAN.

Reszkiewicz, A. 1965. *Correct your English*. Part II. Warszawa: PZWS.

GRAMMAR

NUMERALS IN POLISH AND ENGLISH

MACIEJ SIENICKI

University of Warsaw

1.0 The fact that the starting point of our syntactic and morphophonological discussion is a part of speech notion will obscure the line of argumentation and divide it into loosely connected topics not all of them being presentable by means of consistently ordered rules. Thus we did not attempt at formalizing all the problems discussed in this paper still the rules analyzing morphophonetic problems of numerals as well as those analyzing their place in the constituent structure of Polish sentence are ordered.

1.1 The string I $S \rightarrow NP+VP$ is expanded for our purpose as

$$\text{II} \quad NP \rightarrow (Det)+N \quad (S)$$

where

$$\text{III} \quad N \rightarrow \left\{\begin{matrix} N_m \\ N_f \\ N_n \end{matrix}\right\} +C \quad Numb$$

Nouns are grouped here according to their grammatical gender since the declension of numerals depends on the gender of the noun they determine.

N_n (non-personal masculine and neuter) — okno, samochód

N_f — kobieta, droga

N_m (personal masculine) — chłop, żołnierz

$$\text{IV} \quad Numb \rightarrow \left\{\begin{matrix} Sing \\ Plur \end{matrix}\right\}$$

Sing. co-occurs only with D_n and Adj_n; see below

$$\text{V} \quad C \rightarrow Nom,\ Gen,\ Dat,\ Acc,\ Intr,\ Loc.$$

$$\text{VI} \quad Det \rightarrow \left\{\begin{matrix} Quant \\ D_n \end{matrix}\right\}$$

By the rule VI we differentiate "jedn-" from numerals. It is generally agreed upon that "jedn-" should be treated as a demonstrative pronoun because of its declensional similarity to "ten, ta, to". What is more if "jedn-" were to find its place in the category Quant it should not take the Plural morpheme which it does functioning as a synonyme of "pewien", "któryś", "jakiś", "ów" etc.

$$\text{VII}\quad \text{Quant} \rightarrow \begin{Bmatrix} \text{Nrl} \\ \text{Q} \end{Bmatrix}$$

The formal criterion sanctioning the inclusion of some quantifying words (see the Lexicon page 200) in the class Quant is the fact that analogically to numerals as defined hereby they do not take Numb morpheme, they are inflected according to the gender of the N they quantify and in some instances they govern the case of the noun (see below rules XIV and XV).

$$\text{VIII}\quad \text{Nrl} \rightarrow (\text{Nrl}_D) + \begin{Bmatrix} (\text{Nrl}_B) \\ (\text{Nrl}_C) + (\begin{Bmatrix} \text{Nrl}_A \\ D_n \end{Bmatrix}) \end{Bmatrix}$$

The parentheses indicate that the choices are optional but if the symbol Nrl is chosen in the derivation at least one symbol from the right side of the rule must be chosen.

$$\text{IX}\quad \text{Nrl}_A \rightarrow \begin{Bmatrix} \text{Nu}_1 \\ \text{Nu}_2+\text{C} \end{Bmatrix}$$

$$\text{X}\quad \text{Nrl}_B \rightarrow \begin{Bmatrix} \text{Nu}_3+\text{C} \\ \text{Nu}_4+\text{C} \end{Bmatrix}$$

$$\text{XI}\quad \text{Nrl}_C \rightarrow \text{Nu}_5+\text{C}$$

$$\text{XII}\quad \text{Nrl}_D \rightarrow \text{Nu}_6+\text{C}$$

For the Lexicon see page 200

The grammatical relation between Nu_1 and the noun it determines is that of agreement in case.

$$\text{XIII}\quad \text{Nu}_1+\text{N}+\text{C}+\text{Numb} \Rightarrow \text{Nu}_1+\text{C}+\text{N}+\text{C}+\text{Plur}$$

On the other hand Nu_2, Nu_3, Nu_4, Nu_5, Nu_6 and Quantifiers govern the case of the noun they determine if they are in the Nom, Gen and Acc case.

$$\text{XIV}\quad \begin{bmatrix} \text{Nu}_2 \\ \text{Nu}_3 \\ \text{Nu}_4 \\ \text{Nu}_5 \\ \text{Nu}_6 \\ \text{Q} \end{bmatrix} + \begin{bmatrix} \text{Nom} \\ \text{Acc} \\ \text{Gen} \end{bmatrix} + \text{N}+\text{C}+\text{Plur.} \Rightarrow \begin{bmatrix} \text{Nu}_2 \\ \text{Nu}_3 \\ \text{Nu}_4 \\ \text{Nu}_5 \\ \text{Nu}_6 \\ \text{Q} \end{bmatrix} + \begin{bmatrix} \text{Nom} \\ \text{Acc} \\ \text{Gen} \end{bmatrix} + \text{N}+\text{Gen}+\text{Plur}$$

$$\text{XV}\quad \begin{bmatrix}\text{Nu}_2\\ \text{Nu}_3\\ \text{Nu}_4\\ \text{Nu}_5\\ \text{Nu}_6\\ \text{Q}\end{bmatrix} + \begin{bmatrix}\text{Dat}\\ \text{Instr}\\ \text{Loc}\end{bmatrix} + \text{N} + \text{C} + \text{Plur.} \Rightarrow \begin{bmatrix}\text{Nu}_2\\ \text{Nu}_3\\ \text{Nu}_4\\ \text{Nu}_5\\ \text{Nu}_6\\ \text{Q}\end{bmatrix} + \begin{bmatrix}\text{Dat}\\ \text{Instr}\\ \text{Loc}\end{bmatrix} + \text{N} + \begin{bmatrix}\text{Dat}\\ \text{Instr}\\ \text{Loc}\end{bmatrix} + \text{Plur}$$

For historical reasons the problem of case government/agreement captured the attention of many linguists[1]. The direct consequence of the above problem is the problem of agreement in gender and number between the NP in subject position and the verb — here the acceptability of certain sentences is not established[2].

In brief: the sequence $\left\{\begin{matrix}\text{Nu}_{2-6}\\ \\ \text{Qantifier}\end{matrix}\right\} + \left\{\begin{matrix}\text{N}_m\\ \text{N}_f\\ \text{N}_n\end{matrix}\right\}$ in subject position assigns to the verb the Neut. and Sing. morphemes. The Nu_{2-6} determining a N_m in subject position will have the ending similar to the endings of oblique cases (see rules XLVI, XLVII).
For example:

1. Dwudziestu żołnierzy śpiewa.
2. Pięciu chłopców grało w piłkę.
3. Wielu chłopców grało w piłkę.

The Nu_{2-6} and the Quantifier determining N_m or N_f will have in such sequence an overt Nom inflection. For example:

4. Pięć niewiast grało w brydża.
5. Wiele matek machało chusteczkami.
6. Dwadzieścia słoni piło ze strumyka.

The inflectional morpheme -u from examples 1 - 3 is analyzed by Graphin as being a form of Gen/Acc[3]. Since the use of this relational regularity between the subject and the verb was extended on the subject NP containing Nu_1. Therefore the sentence:

7. Dwaj żołnierze szli. is synonymous to the sentence
8. Dwu żołnierzy szło.

This does not apply to subject NP containing Nu_1 and N_f or N_n. In case of the complex numerals ending with Nu_1 the application of this regularity remains optional although given two sentences:

---

[1] For example see articles by Łoś and Szober (1928 : 97 - 119).
[2] Cf. the results of an inquiry by S. Słoński (1935 : 6 - 92).
[3] For a historical analysis of this form see H. Grappin 1950. Chapter XVIII.

9. Trzydziestu dwu mężczyzn szło.
10. Trzydzieści dwaj mężczyźni szli.

the latter is lower on the scale of acceptability.

1.2 The class of words traditionally known as ordinal numerals will be analyzed conformely to their evident similarity to adjectives. Such solution finds its justification in the following observations.

1. The number and the case of both adjectives and ordinal numerals are governed by the number and the case of the nouns they modify.
2. In contradistinction to numerals derived from the NP ordinal numerals take the Numb morpheme.
3. The type of declension is identical for adjectives and ordinal numerals.
4. The similarity between the ordinal numerals and adjectives is illustrated by the trace of comparison in ordinals: "pierwszy" has the superlative degree "najpierwszy".
5. It is true that the premises 1 - 3 point at the possibility of analyzing ordinal numerals together with D_n class ("jeden, pewien, któryś, jakiś, ów, etc."). The grammar using such assumption would not explain the difference between sentence 11 and 12 (see below). Consequently we have:

$$\text{XVI} \quad \text{VP} \rightarrow \text{Vb} + \text{NP}$$

$$\text{XVII} \quad \text{Vb} \rightarrow \begin{Bmatrix} \text{Jest} + \text{Pred} \\ \text{V} \end{Bmatrix} (\text{Adv})$$

$$\text{XVIII} \quad \text{Pred} \rightarrow \begin{Bmatrix} \text{Collect.} \\ \text{Adj}_n \\ \ldots \end{Bmatrix}$$

The grammatical morphemes will be assigned by transformation thus:

$$\text{XIX} \quad \text{Adj}_n \rightarrow \begin{Bmatrix} A_n \\ A_{quant} \\ A_{qual\ 1} \\ A_{qnal\ 2} \end{Bmatrix}$$

$$\text{XX} \quad A \rightarrow (A_{n5}) + \left(\begin{Bmatrix} A_{n4} + (A_{n1}) \\ A_{n3} \\ A_{n2} \end{Bmatrix} \right)$$

For the Lexicon see page 200

$$\text{XXI} \quad \text{Adv} \rightarrow \begin{Bmatrix} (\text{Prep}_1) + \text{An} \\ \text{Prep}_x + \text{NP} \\ \ldots \end{Bmatrix}$$

XXII $\mathrm{Prep}_1 \rightarrow$ jako

Consider the following sentences:

11. Pierwszy uczeń zrobił zadanie.
12. Uczeń pierwszy zrobił zadanie.

We are in a position to discriminate between the structural descriptions of the two sentences saying that 12. is synonymous to 13.

13. Uczeń zrobił zadanie (jako) pierwszy.

This however could not be done if we decided that A_n is a constituent of the NP. Under such assumption it would be impossible to derive transformationally the adverb in question and even if such a possibility existed we could not have done it without being inconsistent. Consider the sentence:

14. Drugi artysta zaśpiewał pierwszy[4].

Returning to the rules of formation:

$$\text{XXIII}\quad \mathrm{Prep}_x \rightarrow \begin{Bmatrix} \text{przy} & + \text{Loc} \\ \text{za} & + \text{Instr} \\ \text{po} & + \text{Loc} \\ \ldots & \end{Bmatrix}$$

The rule accounts for sentences of the type:

15. Jan skoczył za pierwszym razem.
16. Udało się przy czwartej próbie.
17. Udało się po czterech próbach.

It is possible to derive adverbials from A_{quant}, $A_{\mathrm{qual\ 1}}$, $A_{\mathrm{qual\ 2}}$ as in the example:

18 a Pawła cierpienie jest dwukrotne ⇒
b ⇒ Paweł cierpi dwukrotnie.

A transformation will add the morpheme -ie to A_{quant} and the morpheme -o to $A_{\mathrm{qual\ 1}}$ or $A_{\mathrm{qual\ 2}}$.

Although the problem is of great complexity without going into details we may risk the statement that the restrictions on the formation of adverbs from A_{quant} and $A_{\mathrm{qual\ 1,2}}$ are similar to those imposed on the occurrence of manner adverbials.

---

[4] It is also possible to derive this sentence in the following way: Drugi artysta śpiewa. Constituent: Śpiewanie jest pierwsze. In this case, too, our basic assumption concerning ordinals remains valid.

Judging by the surface structure of a certain type of sentences it may be doubted whether this analysis accounts for the appearance of cardinal numerals in predicate position as in the sentence:

19. Chłopów jest dwudziestu.

Consider now the sentences

20. Chłopów jechało dwudziestu.
21. W domu wódki był nadmiar.

from which it can be seen that "dwudziestu" and "nadmiar" function as the subject of the verb in sentences 20, 21 and 19. The specific word order is due to the presence of Emph. element in the structural description of these sentences. Without this element the sentences will read as follows:

20a Dwudziestu chłopów jechało.
21a Nadmiar wódki był w domu.

This brings us to the problem of numerals functioning as nominals. Three distinct occurences will be considered.

1. The numeral may stand alone in the terminal string the noun it determines/modifies being deleted. For example:

22. Trzech pracowało a jeden spał.
23. Pierwszy śmiał się drugi łkał.

2. Cardinal numerals may function as names of abstract notions.

24. Dwa razy dwa jest pięć.

3. Collective nouns function as subjects.

25. Cała dziesiątka pękała ze śmiechu.
26. Czwórka ruszyła do przodu.

In sentence 26 "czwórka" may stand for "a group of four horses", "a row of four soldiers", "a bus serving the line number four", or finally "a row-boat manned by four rowers".

1.3.1. The declension of jedn- (D_n) is with some exceptions identical to that of A_n. (The rules will be presented in a simplified but more legible form. The D_n and Adj_n agree in number and case with the determined/modified noun:

$$\text{XXIV}\quad \left\{\begin{matrix} D_n \\ Adj_n \end{matrix}\right\} + N + C + Numb \Rightarrow \left\{\begin{matrix} D_n \\ Adj_n \end{matrix}\right\} + C + Numb + N + C + Numb$$

From the point of view of meaning when the D_n takes the plural morpheme it functions no longer as a numeral.

$$\text{XXV}\quad \left\{\begin{matrix}D_n\\ \text{Adj}_n\end{matrix}\right\}+\begin{bmatrix}\left\{\begin{matrix}\text{Gen}\\ \text{Acc}\end{matrix}\right\}\\ \text{Dat}\\ \left\{\begin{matrix}\text{Loc}\\ \text{Instr}\end{matrix}\right\}\end{bmatrix}\text{Sing}+N_m\Rightarrow\left\{\begin{matrix}D_n\\ \text{Adj}_n\end{matrix}\right\}\begin{bmatrix}\text{-ego}\\ \text{-emu}\\ \text{-ym}\end{bmatrix}+N_m$$

$$\text{XXVI}\quad \left\{\begin{matrix}D_n\\ \text{Adj}_n\end{matrix}\right\}+\begin{matrix}\left[\left\{\begin{matrix}\text{Gen}\\ \text{Dat}\\ \text{Instr}\end{matrix}\right\}\right]\\ \left[\left\{\begin{matrix}\text{Acc}\\ \text{Loc}\end{matrix}\right\}\right]\end{matrix}+\text{Sing}+N_f\Rightarrow\left\{\begin{matrix}D_n\\ \text{Adj}_n\end{matrix}\right\}\begin{bmatrix}\text{-ej}\\ \\ \text{-ą}\end{bmatrix}+N_f$$

$$\text{XXVII}\quad \left\{\begin{matrix}D_n\\ \text{Adj}_n\end{matrix}\right\}+\begin{bmatrix}\left\{\begin{matrix}\text{Instr}\\ \text{Loc}\end{matrix}\right\}\\ \text{Gen}\\ \text{Dat}\end{bmatrix}+\text{Sing}+N_n\Rightarrow\left\{\begin{matrix}D_n\\ \text{Adj}_n\end{matrix}\right\}\begin{bmatrix}\text{-ym}\\ \text{-ego}\\ \text{-emu}\end{bmatrix}+N_n$$

$$\text{XXVIII}\quad \text{Adj}_n+\text{Nom}+\text{Sing}+\begin{bmatrix}N_m\\ N_f\\ N_n\end{bmatrix}\Rightarrow\text{Adj}_n+\begin{bmatrix}\text{-y}\\ \text{-a}\\ \text{-e}\end{bmatrix}+\begin{bmatrix}N_m\\ N_f\\ N_n\end{bmatrix}$$

$$\text{XXIX}\quad \text{Adj}_n+\text{Acc}+\text{Sing}+N_n\Rightarrow\text{Adj}_n+\text{-e}+N_n$$

$$\text{XXX}\quad D_n+\text{Nom}+\text{Sing}\begin{bmatrix}N_m\\ N_f\\ N_n\end{bmatrix}\Rightarrow D_n+\begin{bmatrix}\text{-Ø}\\ \text{-a}\\ \text{-o}\end{bmatrix}+\begin{bmatrix}N_m\\ N_f\\ N_n\end{bmatrix}$$

$$\text{XXXI}\quad D_n+\text{Acc}+\text{Sing}+N_n\Rightarrow D_n+\text{-o}+N_n$$

$$\text{XXXII}\quad \left\{\begin{matrix}D_n\\ \text{Adj}_n\end{matrix}\right\}+\text{Nom}+\text{Plur}+\begin{bmatrix}N_m\\ \left\{\begin{matrix}N_f\\ N_n\end{matrix}\right\}\end{bmatrix}\Rightarrow\left\{\begin{matrix}D_n\\ \text{Adj}_n\end{matrix}\right\}+\begin{bmatrix}\text{-i}\\ \\ \text{-e-}\end{bmatrix}\begin{bmatrix}N_m\\ \left\{\begin{matrix}N_f\\ N_n\end{matrix}\right\}\end{bmatrix}$$

$$\text{XXXIII}\quad \left\{\begin{matrix}D_n\\ \text{Adj}_n\end{matrix}\right\}+\begin{bmatrix}\left\{\begin{matrix}\text{Gen}\\ \text{Loc}\end{matrix}\right\}\\ \text{Dat}\\ \text{Instr}\end{bmatrix}+\text{Plur}+\begin{bmatrix}N_m\\ N_f\\ N_n\end{bmatrix}\Rightarrow\left\{\begin{matrix}D_n\\ \text{Adj}_n\end{matrix}\right\}+\begin{bmatrix}\text{-ych}\\ \text{-ym}\\ \text{-ymi}\end{bmatrix}\begin{bmatrix}N_m\\ N_f\\ N_n\end{bmatrix}$$

$$\text{XXXIV}\quad \begin{bmatrix}D_n\\ \text{Adj}_n\end{bmatrix}+\text{Acc}+\text{Plur}+\begin{bmatrix}N_m\\ \left\{\begin{matrix}N_f\\ N_n\end{matrix}\right\}\end{bmatrix}\Rightarrow\begin{bmatrix}D_n\\ \text{Adj}_n\end{bmatrix}+\begin{bmatrix}\text{-ych}\\ \\ \text{-e}\end{bmatrix}+\begin{bmatrix}N_m\\ \left\{\begin{matrix}N_f\\ N_n\end{matrix}\right\}\end{bmatrix}$$

In complex numerals D_n keeps the uninflected form in Nom and oblique cases.

XXXV $$\begin{bmatrix}\text{Nu}_5\\ \text{Nu}_6\end{bmatrix} \text{C}+\text{D}_n+\text{N}+\text{C}+\text{Numb} \Rightarrow \begin{bmatrix}\text{Nu}_5\\ \text{Nu}_6\end{bmatrix} \text{C}+\text{D}_n+-\emptyset+\text{N}+\text{C}+\text{Plur}.$$

as in the sentences:

27. Nie widziałem dwudziestu jeden żołnierzy (okien. kobiet)

or 28. Przyglądali się z uwagą dwudziestu jeden czołgom, dywizjom.

Some speakers however use an irregular form „dwudziestu jedniu" in oblique cases with N_m.

In complex A_n the case agreement remains as indicated in the rules except for A_{n5}.

XXXVI $$A_{n5}+\begin{bmatrix}A_{n1}\\ A_{n2}\\ A_{n3}\\ A_{n4}\end{bmatrix} \Rightarrow \text{Nu}_6+\text{Nom}+\begin{bmatrix}A_{n1}\\ A_{n2}\\ A_{n3}\\ A_{n4}\end{bmatrix}.$$

consider for example the following sentences:

29. Na metę przyjechał setny zawodnik.
30. Na metę przyjechał sto pierwszy zawodnik.

1.3.2. The inflectional system of cardinal numerals is not as regular as that of ord. numerals. A number of lexical entries have to be treated individually.

XXXVII $$\begin{bmatrix}\text{dw-}\\ \text{trz-}\\ \text{czter-}\end{bmatrix}+\begin{Bmatrix}\text{Gen}\\ \\ \text{Loc}\end{Bmatrix}+\begin{bmatrix}N_m\\ N_f\\ N_n\end{bmatrix} \Rightarrow \begin{bmatrix}\text{dw-}\\ \text{trz-}\\ \text{czter-}\end{bmatrix}+\begin{bmatrix}\text{-óch/u}\\ \text{-ech}\\ \text{-ech}\end{bmatrix}+\begin{bmatrix}N_m\\ N_f\\ N_n\end{bmatrix}$$

XXXVIII $$\begin{bmatrix}\text{dw-}\\ \text{trz-}\\ \text{czter-}\end{bmatrix}+\text{Dat}+\begin{bmatrix}N_m\\ N_f\\ N_n\end{bmatrix} \Rightarrow \begin{bmatrix}\text{dw-}\\ \text{trz-}\\ \text{czter-}\end{bmatrix}+\begin{bmatrix}\text{-om/u}\\ \text{-em}\\ \text{-em}\end{bmatrix}+\begin{bmatrix}N_m\\ N_f\\ N_n\end{bmatrix}$$

XXXIX $$\text{dw-}+\begin{Bmatrix}\text{Nom}\\ \text{Acc}\end{Bmatrix}+\begin{bmatrix}N_f\\ N_n\end{bmatrix} \Rightarrow \text{dw-}+\begin{bmatrix}\text{-ie}\\ \text{-a}\end{bmatrix}+\begin{bmatrix}N_f\\ N_n\end{bmatrix}$$

XL $$\text{dw-}+\text{Nom}+N_m \Rightarrow \text{dw-}+\text{-aj}+N_m$$

XLI $$\text{dw-}+\begin{bmatrix}\text{Acc}\\ \text{Loc}\end{bmatrix}+N_m \Rightarrow \text{dw-}+\begin{bmatrix}\text{-óch}\\ \text{-u}\end{bmatrix}+N_m$$

XLII $$\text{dw-}+\text{Instr}+\begin{bmatrix}N_m\\ N_f\\ N_n\end{bmatrix} \Rightarrow \text{dw-}+\begin{bmatrix}\text{-oma}\\ \text{-iema}\\ \text{-oma}\end{bmatrix}+\begin{bmatrix}N_m\\ N_f\\ N_n\end{bmatrix}$$

$$\text{XLIII}\qquad \begin{bmatrix}\text{trz-}\\ \text{czter-}\end{bmatrix}+\begin{Bmatrix}\text{Nom}\\ \text{Acc}\end{Bmatrix}+\begin{bmatrix}N_f\\ N_n\end{bmatrix}\Rightarrow\begin{bmatrix}\text{trz-}\\ \text{czter-}\end{bmatrix}+\text{-y}\begin{bmatrix}N_m\\ N_n\end{bmatrix}$$

$$\text{XLIV}\qquad \begin{bmatrix}\text{trz-}\\ \text{czter-}\end{bmatrix}+\text{Nom}+N_m\Rightarrow\begin{bmatrix}\text{trz}\\ \text{czter-}\end{bmatrix}\text{-ej}+N_m$$

$$\text{XLV}\qquad \begin{bmatrix}\text{trz-}\\ \\ \text{czter-}\end{bmatrix}+\begin{bmatrix}\text{Instr.}\\ \\ \text{Loc}\end{bmatrix}+\begin{bmatrix}N_m\\ N_f\\ N_n\end{bmatrix}\Rightarrow\begin{bmatrix}\text{trz-}\\ \\ \text{czter-}\end{bmatrix}+\begin{bmatrix}\text{-ma}\\ \\ \text{-ech}\end{bmatrix}+\begin{bmatrix}N_m\\ N_f\\ N_n\end{bmatrix}$$

$$\text{XLVI}\qquad \begin{bmatrix}Nu_2\\ Nu_3\\ Nu_4\\ Nu_5\\ Nu_6\end{bmatrix}+\left\{\begin{matrix}\text{Gen}\\ \text{Dat}\\ \\ \text{Loc}\\ \text{Instr}\end{matrix}\right\}+N\Rightarrow\begin{bmatrix}Nu_2\\ Nu_3\\ Nu_4\\ Nu_5\\ Nu_6\end{bmatrix}+\text{-u}+N$$

In Instr. case the above numerals are said to have an alternative inflection –oma. We will show two restrictions on the occurence of this ending.

In complex numerals the case agreement follows the same regularities as in the case of simple numerals. The ending -oma however does not appear with Nu_6 in complex numerals, as in the sentences:

31. Posługiwał się dziewięćdziesięcioma przykładami.
32. Posługiwał się stu dziewięćdziesięcioma pięcioma przykładami.

This ending cannot be used in complex numerals containing D_n. Consider the examples:

33. Posługiwał się dziewięćdziesięciu jeden przykładami.

and not 34. Posługiwał się dziewięćdziesięcioma jeden przykładami.

$$\text{XLVII}\qquad \begin{bmatrix}Nu_2\\ Nu_3\\ Nu_4\\ Nu_5\\ Nu_6\end{bmatrix}\quad\begin{Bmatrix}\text{Nom}\\ \\ \text{Acc}\end{Bmatrix}+N_m\Rightarrow\begin{bmatrix}Nu_2\\ Nu_3\\ Nu_4\\ Nu_5\\ Nu_6\end{bmatrix}+\text{-u}+N_m$$

From rules XLVI and XLVII we see that numerals determining the personal masculine nouns have the same endings for all cases. The numerals determining N_f and N_n will need a particular treatement in Acc and Nom.

$$\text{XLVIII}\quad \begin{bmatrix}\text{dziesięć-}\\ \text{pięćdziesiAT-}\\ \text{sześćdziesiAT-}\\ \text{siedemdziesiAT-}\\ \text{osiemdziasiAT-}\\ \text{dziewięćdziesiAT-}\end{bmatrix}\begin{Bmatrix}\text{Nom}\\ \\ \text{Acc}\end{Bmatrix}\begin{bmatrix}N_f\\ \\ N_n\end{bmatrix}\Rightarrow\begin{bmatrix}\text{dziesięć-}\\ \text{pięćdziesiAT-}\\ \text{sześćdziesiAT-}\\ \text{siedemdziesiAT-}\\ \text{osiemdziesiAT-}\\ \text{dziewięćdziesiAT-}\end{bmatrix}+\text{-Ø}+\begin{bmatrix}N_f\\ \\ N_n\end{bmatrix}$$

XLIX
$$\begin{bmatrix}\text{jedenaST-}\\ \text{dwanaST-}\\ \text{trzynaST-}\\ \cdots\cdots\\ \cdots\cdots\\ \text{dziewiętnaST-}\\ \text{dwieST-}\end{bmatrix}+\begin{Bmatrix}\text{Nom}\\ \\ \text{Acc}\end{Bmatrix}\begin{bmatrix}N_f\\ \\ N_n\end{bmatrix}\Rightarrow\begin{bmatrix}\text{jedenaST-}\\ \text{dwanaST-}\\ \text{trzynaST-}\\ \cdots\\ \cdots\\ \text{dziewiętnaST-}\\ \text{dwieST-}\end{bmatrix}+\text{-ie}\begin{bmatrix}N_f\\ \\ N_n\end{bmatrix}$$

L
$$\begin{bmatrix}\text{trzydzieST-}\\ \text{czterdzieST-}\end{bmatrix}+\begin{Bmatrix}\text{Nom}\\ \text{Acc}\end{Bmatrix}+\begin{bmatrix}N_f\\ N_n\end{bmatrix}\Rightarrow\begin{bmatrix}\text{trzydzieST-}\\ \text{czterdzieST-}\end{bmatrix}+\text{-i}\begin{bmatrix}N_f\\ N_n\end{bmatrix}$$

LI
$$\text{sto-}+\begin{Bmatrix}\text{Nom}\\ \text{Acc}\end{Bmatrix}+\begin{bmatrix}N_f\\ N_n\end{bmatrix}\Rightarrow\text{sto-}+\text{-}\emptyset+\begin{bmatrix}N_f\\ N_n\end{bmatrix}$$

$$\begin{bmatrix}\text{dwadzieST-}\\ \text{trzyst-}\\ \text{czteryst-}\end{bmatrix}+\begin{Bmatrix}\text{Nom}\\ \\ \text{Acc}\end{Bmatrix}+\begin{bmatrix}N_f\\ \\ N_n\end{bmatrix}\Rightarrow\begin{bmatrix}\text{dwadzieST-}\\ \text{trzyst-}\\ \text{czteryst-}\end{bmatrix}+\text{-a}+\begin{bmatrix}N_f\\ \\ N_n\end{bmatrix}$$

1.4 Some readjustment rules are needed in order to give to lexical entries their final representation.

LII
$$x+ST+\begin{bmatrix}\text{-i}\\ \text{-ie}\\ \text{-a}\end{bmatrix}\#\Rightarrow x+\text{ść}+\begin{bmatrix}\text{-i}\\ \text{-ie}\\ \text{-a}\end{bmatrix}\#$$

which gives: dwanaście
dwadzieścia

LIII
$$x\ ST+Y\#\Rightarrow x\ st+Y\#$$

where x=any string
Y=any vowel other than "i" and "a" and any sequence beginning with other vowel than "i" and "a" "ą"

which gives: trzydziestu,
trzydziesty,
trzydziestoma.

LIV
$$x+AT+\begin{bmatrix}\text{-u}\\ \text{-i}\end{bmatrix}\#\Rightarrow x\begin{bmatrix}\text{ęc}\\ \text{ąc}\end{bmatrix}+\begin{bmatrix}\text{-iu}\\ \text{-i}\end{bmatrix}\#$$

which gives: osiemdziesięciu, dziewiąci.

LV
$$x\ AT+\text{-oma}\Rightarrow x\ \text{ęci}+\text{-oma}$$

to give: pięćdziesięcioma

LVI
$$x\ AT+Y\Rightarrow x\text{ąt}+Y$$

where Y=word boundry or any other vowel than i, o or any string other than beginning with an i or o.
The rule LVI gives: osiemdziesiąt, dziesiąta.

LVII $x \begin{bmatrix} \text{m} \\ \text{ć} \end{bmatrix} + \text{-u} \# \Rightarrow x \begin{bmatrix} \text{miu} \\ \text{ciu} \end{bmatrix} \#$

which gives: sześciu, siedmiu.

LVIII $x \begin{bmatrix} \text{g} \\ \text{c} \end{bmatrix} + \text{-e} \# \Rightarrow x \begin{bmatrix} \text{gi} \\ \text{ci} \end{bmatrix} + \text{-e} \#$

which gives: drugie, trzecie.

LIX $x\ \text{c} + \text{-a} \# \Rightarrow x + \text{ci} + \text{-a} \#$

to give: trzecia

LX $x \begin{bmatrix} \text{g} \\ \text{c} \end{bmatrix} + \text{-y} + X \Rightarrow x + \begin{bmatrix} \text{gi} \\ \text{ci} \end{bmatrix} + X$

where X=any string or word boundry.
The rule gives: drugimi

LXI $x \begin{bmatrix} \text{dn} \\ \text{dm} \\ \text{sm} \end{bmatrix} + \emptyset \# \Rightarrow x \begin{bmatrix} \text{den} \\ \text{dem} \\ \text{siem} \end{bmatrix} \#$

which gives: siedem, jeden, osiem.

LXII $\left\{ \begin{matrix} \text{dwa} & x \\ \text{dwie} & x \end{matrix} \right\} + \begin{bmatrix} \text{Gen} \\ \text{Dat} \\ \text{Instr} \\ \text{Loc} \end{bmatrix} \Rightarrow \text{dwu}\ x + \begin{bmatrix} \text{Gen} \\ \text{Dat} \\ \text{Instr} \\ \text{Loc} \end{bmatrix}$

to give: dwudziestoma, dwustoma.

LXIII $x + K + \text{-y}\ X \Rightarrow x\ \text{ki} + X$ where X any string #

example: dwojakim, dwojaki.

LXIV $x\ K + \text{-i} \# \Rightarrow x\ \text{cy} \#$ example: dwojacy.

LXV $x + K + Y \# \Rightarrow x\ \text{ki} + Y \#$

where Y= any vowel other than "i" or "y"
a string beginning with other than "i" or "y" a vowel

Apart from the rules expanding ST, AT symbols we do not pretend to describe here any phonological regularity which could be valid for a description of Polish language in general.

1.5. The Lexicon

L. 1 D_n →jedn-
L. 2 Nu_1 →dw-, trz-, czter-;
L. 3 Nu_2 →pięć-, sześć-, siedm-, ośm-, dziewięć-.
L. 4 Nu_3 →dziesięć-.
L. 5 Nu_4 →jedenaST-, dwunaST-, trzynaST-, ... dziewiętnaST-.
L. 6 Nu_5 →dwadzieST-, trzydzieST-, czterdzieST-, pięćdziesiAT- sześćdziesiAT- ... dziewięćdziesiAT-.
L. 7 Nu_6 →sto-, dwieST-, trzyst-, czteryst-.
L. 8 Q →wiele, kilka, parę, tyle, ile... etc.
L. 9 A_{n1} →pierwsz-, drug-, trzec-, czwart-, piAT-, szóST-, siódm-, ósm-, dziewiAT-.
L. 10 A_{n2} →dziesiAT-.
L. 11 A_{n3} →jedenaST-, dwunaST-, trzynaST- ... dziewiętnaST-.
L. 12 A_{n4} →dwudzieST-, trzydzieST-, czterdzieST-, pięćdziesiAT-, sześćdziesiAT-, ... dziewięćdziesiAT-.
L. 13 A_{n5} →setn-, dwusetn-, trzysetn-(trzechsetn-)...
L. 14 A_{quant} →pojedyncz-, podwójn-, potrójn-, poczwórn-, poszóstn-.
L. 15 A_{qual1} →jednokrotn-, dwukrotn-, trzykrotn-...
L. 16 A_{qual2} →dwojaK-, trojaK-, czworaK-, pięcioraK- ...
L. 17 Collect. →mnóstwo, nadmiar, masa, obfitość etc.

There is a number of restrictions on the use of certain lexical entries; for instance there is no such word as "popiątny" and "poszóstny" is used only in reference to a kind of horse team.

2.0. The problem of English numerals lies far from the crucial problems of TG grammars. In most descriptive works numerals are analyzed as being the constituents of the noun phrase. This typical approach is presented best by O. Thomas (in "Transformational Grammar and the Teacher of English", ch. 4.2).

LXVI
$$\text{Det} \rightarrow (\text{Predet})\ (\text{Preart}) \begin{Bmatrix} \text{Art} \\ \text{Dem} \\ \text{Gen} \end{Bmatrix} (\text{Postdet})$$

LXVII
$$\text{Predet} \rightarrow \left\{ \begin{matrix} (\text{Preart}) \begin{Bmatrix} \text{Art} \\ \text{Dem} \\ \text{Gen} \end{Bmatrix} (\text{Postdet}) \\ N_{quan} \end{matrix} \right\} + \text{of}$$

LXVIII
$$\text{Postdet} \rightarrow (\text{Ord})\quad (\text{Card})\quad (\text{Comp})$$

These rules account for a vast variety of determinative constructions such as for instance: your first two girls; the first of those three bubbles; just the last two of my first five children.

In the lexicon numerals are listed together with other quantifying and ordering determinatives:

LXIX Card → one, two, three ... several, many, few...

LXX Ord → first, second ... next, last, final ...

Such presentation suggests that complex (phrasal) numerals are listed as separate lexical entries.

A different analysis sketched by Lakoff (in Irregularity in Syntax appendix F) is based on the fact that the sentence of the type:

35. Everyone in the room knows two languages

requires a description accounting for the ambiguity in "two languages" ("any two languages" and "the same two languages"). Analyzing this and similar examples Lakoff concludes to the necessity of deriving numerals from the Predicate. Although such analysis gives a new insight in the problem of numerals in general and in the problem of question formation in particular the above mentioned problem can be easily solved by means of the traditional descriptive procedure. In the case of such presumed ambiguity we have to do with two strings:

Def two languages
Indef two languages

The adverbial use of numerals is limited to prepositional phrases such as: "in one leap, at first sight..." Numerals can function as noun substitute as in:

36. He looked for three books and bought only two.
37. Give him one on the nose.

Similarily to Polish jedn- "one" may take the plural morpheme when it functions no longer as a numeral.
In nounal use numerals are used as names of abstract notions:

38. Six divided by three is two.

English numerals are used in predicate position only in colloquial expressions or sentences in which the noun they determine is deleted.

39. She is twenty (years old).
40. The books are five (in number).

The English adjectives of the types: "double" and "twofold" which correspond to the Polish adjectives A_{quant}, $A_{qual\,1,2}$ are not related transformationally to numerals and are to be considered as base adjectives.

3. The main differences between Polish and English numerals may be summarized as follows:

   1. There are clear and good reasons for analyzing Polish ordinal numerals as being a VP-constituent. On the contrary such a solution seems to be superfluous for English numerals.
   2. The use of numerals in prepositional adverbial phrases is similar in both languages. In Polish however ordinals function as adverbs which does not seem to be the case of English numerals if we consider the fact that "first" has a particular denumerative function which is different from those of numerals.

41. Let's investigate our possibilities first. Than we will decide.

where "first" contrasts with "than" (like Polish "najpierw") with "później"

   3. Unlike English numerals Polish numerals are inflected according to the gender of the noun they modify/determine, according to the case and, in case of ordinals, according to the number of the noun.
   4. Polish complex (compound) numerals have their internal case agreement and form-co-occurence rules. Consequently they must be introduced in the phrase structure rules in separate groups. English numerals may be introduced as lexical entries from a common pre-terminal symbol.

REFERENCES

Doroszewski, W., 1963. *Podstawy gramatyki polskiej*, 2nd ed. Warszawa: PWN.

Grappin, H. 1950. *Les Noms de nombre en polonais*. Kraków: PAN.

Hathaway, B. 1967. *A transformational syntax*. New York: The Ronald Press Company.

Jespersen, O. 1949. *A modern English grammar*. London: George Allen and Unwin Ltd.

Lakoff, G. 1970. *Irregularity in syntax*. New York: Holt, Rinehart and Winston.

Long, R. B. 1961. *The sentence and its parts*. Chicago: The University of Chicago Press.

Łoś, Z., Szober, S. 1928. "Trzy piękne córki było nas u matki". *Język polski* XIII. Kraków. 97-119.

Roberts, P. 1961. *Modern grammar*. New York: Harcourt, Brace and World Co.

Słoński, S. 1935. "O dwojgu chorych dzieciach". *Język polski* XX. Kraków.

Thomas, O. 1965. *Transformational grammar and the teacher of English*. New York: Holt, Rinehart and Winston.

SOME ASPECTS OF DEFINITENESS AND INDEFINITENESS OF NOUNS IN POLISH

ALEKSANDER SZWEDEK

University of Łódź

1. Within contrastive studies one of the more difficult problems has always been the problem of Polish equivalents of the English article which, among others, is used to indicate coreference. Although there is no article in Polish we seldom have doubts whether a noun in a text is definite or indefinite. It is obvious that there must exist linguistic mechanisms in Polish which perform the function parallel to the function of the article in English. There would seem to be in Polish three possible ways of showing the definite/indefinite distinction:

(a) pronouns,
(b) stress and intonation,
(c) word order.

The first is obvious, the second has only recently been mentioned in the case of English (Akmajian and Jackendoff 1968), the third might be considered absurd. All three remain uninvestigated, perhaps with the exception of pronouns the article function of which has been denied by Pisarek (1968).

I do not propose to give exhaustive description and ready solutions to all problems involved here. If only for the simple reason that I do not have the descriptions and the solutions. My purpose has been to call attention to some aspects of, what I consider to be, the main issues in the expression of the definite/indefinite distinction in Polish. One of the more particular aims has been to demonstrate that word order in Polish is not free as has generally been assumed, and specifically that it plays a crucial role in anaphoric processes.

2. As has already been said very little can be found in linguistic literature about pronouns and their relation to the definite/indefinite distinction. The

only work which mentions pronouns in connection with this problem was written by Krystyna Pisarek in 1968. There we find two observations relevant for the present discussion. One is a description of definiteness and indefiniteness in Polish, the other concerns the demonstrative pronoun *ten*.

As to the former Pisarek correctly observes that indefiniteness of Polish pronouns should be understood differently from indefiniteness of pronouns in those languages in which it appears in opposition to definiteness. This opposition is expressed most fully by pairs of articles. In Polish where there are no articles nor explicit definiteness or the lack of it realized by morphological features, there are no pronouns which can be called definite. The opposition of definiteness to indefiniteness is expressed in a specific way: for example, by the opposition of a given pronoun to the lack of the pronoun. This is how I understand the sense of grammatical definiteness in Polish... (Pisarek 1968: 12).

However, in my opinion, there are clear and well defined cases where the lack of the pronoun does not mark the noun as indefinite. I shall return to this problem briefly in section 4.

The remarks on the pronoun *ten* are more interesting and more detailed. According to Pisarek, and I fully agree with her here, it is the only pronoun that can be thought of as having a definite article function. She distinguishes several functions of *ten*, among others article-like usage which is clearecast in two occurrences:

a) in the substantivating function, as in

(1) *Te najporządniejsze* też robią w łazience bałagan whe[illegible]e simply substantivates the adjective *najporządniejsze*.

b) with proper names, as in

(2) Byliśmy najpierw oglądać *ten Erfurt*.

At the end of the discussion of *ten* Pisarek states that only in such adverbial phrases as *w tych dniach*, *tej niedzieli*, etc. is *ten* obligatory. Since all other occurrences of this pronoun are, according to her, optional the suspicion that *ten* may have an article function is unjustified. Examples given by Pisarek seem to support this view:

(3) Wykradł milicjantowi rewolwer. *Ten milicjant* siedział za to.

We may omit *ten* without changing the definiteness of the noun.

(4) Wykradł milicjantowi rewolwer. Milicjant siedział za to.

Let us, however, change the word order in the sequence sentence, putting the noun under consideration in sentence final position, and let us examine the optionality of *ten*.

(5) Wykradł milicjantowi rewolwer. Siedział za to ten milicjant.

(6) Wykradł milicjantowi rewolwer. Siedział za to milicjant.

It is clear that (6) is not in anyway equivalent with (3). It means that the adverbial mentioned above are not the only structures in which *ten* is obligatory. If we want the noun in (6) to have the same definite interpretation as (3) we have to use *ten*. The above examples demonstrate also that the obligatoriness is connected with word order. I shall return to this problem again in section 4.

3. It has been recognized for some time that intonation affects semantic interpretation. Chomsky (1969: 53) writes: "It has been noted by Akmajian and Jackendoff (1968) that stress plays a role in determining how the reference of pronouns is to be interpreted. For example, in sentence (93), "him" refers to Bill if it is unstressed, but it may refer either to John or to someone other than John or Bill if it is stressed:

[(7)] (93) John hit Bill and then George hit him.

Chomsky also devotes several pages of his work to the discussion of focus and presupposition in sentences with normal intonation. He admits, however, that 'The concept of "normal intonation" is far from clear' and that 'Special grammatical processes of a poorly understood sort may apply in the generation of sentences, marking certain items... as bearing specific expressive or contrastive features that will shift the intonation center'. He finally concludes that 'Given the obscure nature of these matters, it is difficult to say anything more definite'. (Chomsky 1969: 73aff)

The neglect of these problems in Polish is even more acute. We find nothing about them in grammars. Let me, however, consider briefly what happens with sentences (3) - (6) if contrastive intonation is used. Specifically I want to see whether contrastive intonation a) changes the meaning of *ten*: b) changes the difference hinted at by (5) and (6).

The contrastive stress may fall on any word although such stress on *to* seems very awkward at first glance. What changes in (3) and (5), regardless of the place of the stress, are implications. So, for example, the stress on *ten* emphasizes this particular policeman as opposed to other policemen, the stress on *milicjant* sets the policeman as belonging to the class of *policemen* against other classes, for example, *civilians*. Nothing, however, changes in the coreference.

In (4) and (6) we get different interpretations depending on the place of the stress. If *milicjant* is stressed the sentence is ambiguous. We get three readings:

(a) this policeman and not the 'he' mentioned in the initial sentence,
(b) a different policeman,
(c) policeman as a class opposed to, say, the class *civilian*.

In the first reading *milicjant* in the sequence sentence is coreferential with *milicjant* in the initial sentence. In the second and third it is not. In all other cases *milicjant* is coreferential although I have some doubts as to (6) in this respect.

The conclusions of this very superficial discussion of contrastive stress are as follows:

(a) the contrastive stress does not affect the definiteness of the noun if the noun is accompanied by *ten*.

(b) if the noun stands alone (without *ten*) and bears the contrastive stress it possesses three-way ambiguity:

(I) it is definite, opposed to the other noun in the initial sentence,

(II) it is indefinite in that a different referent is meant,

(III) it is indefinite in that the referent is understood as a class in opposition to some other class.

(c) if the noun stands alone and does *not* bear the stress it is definite.

The situation described in point (b) seems to be the same as the one discussed for English by Chomsky (1969).

The aims of the above brief survey have been two:

(a) to stress the need of work on these problems,

(b) to make it possible for me to write the next section without having to explain what the concept *normal intonation* is. I will only repeat after Chomsky (1969) that normal intonation is to be 'understood tentatively as referring to cases in which the intonation contour is determined by rules of the sort discussed in Chomsky and Halle (1968), with no expressive or contrastive intonation'.

4. The aim of this section is to demonstrate that, contrary to widespread and advocated beliefs, word order in Polish is not free and that it plays a crucial role in anaphoric processes. Very little is found in Polish grammars about word order and nothing about its participation in definite/indefinite distinction. The total neglect of these problems is due to the traditional and deeply rooted assumption that word order in Polish is free because logical functions are unmistakably indicated by inflexion. Let us, however, consider the initial sentence (8)

(8) W pokoju siedziała dziewczyna.

and two sequence sentences (9) and (10)

(9) Wszedł chłopiec.

(10) Chłopiec wszedł.

According to the traditional view sentences (9) and (10) have the same meaning and thus we would expect that both can follow (8).

And yet we find that only (9) is correct after (8).

Likewise, given the initial sentence (11)

(11) W pokoju siedział chłopiec.

and two sequence sentences (12) and (13)

(12) Chłopiec wyszedł.
(13) Wyszedł chłopiec.

we would expect that both (12) and (13) might follow (11) and yet again we find that only (12) is correct. We would expect that since there was only one boy in the room and only one boy left, and the two sentences constitute a sequence, the boy in both (11) and (13) is the same and word order would not matter. Instead we find that the sequence (11) - (13) is simply impossible. The boy in (13) is different from the boy in (11) and the whole situation becomes absurd.

Let us consider now a more complex example with three nouns. There are twelve variants which I want to discuss, disregarding the other combinations on the basis of an at the moment unjustified argument of their infrequency (especially those with the verb in sentence initial and sentence final position seem infrequent)

The initial sentences are the following:

(14) Na podwórzu bawił się piłką chłopiec.
(15) Na podwórzu bawił się chłopiec z kotem.
(16) Na podwórzu bawił się kot piłką.

The twelve variants are as follows:

(17) Chłopiec dał kotu piłkę.
(18) Chłopiec dał piłkę kotu.
(19) Chłopiec piłkę dał kotu.
(20) Chłopiec kotu dał piłkę.
(21) Kotu chłopiec dał piłkę.
(22) Kotu piłkę dał chłopiec.
(23) Kotu dał chłopiec piłkę.
(24) Kotu dał chłopiec piłkę.
(25) Piłkę dał chłopiec kotu.
(26) Piłkę dał kotu chłopiec.
(27) Piłkę kotu dał chłopiec.
(28) Piłkę chłopiec dał kotu.

We will find that (14) can be followed only by (18), (19), (25) and (28), that is, by those sequence sentences in which the new noun is in the final position. The same with (15) which can be followed only by (17), (20), (21) and (24), and with (16) which can be followed by (22), (23), (26) and (27).

Sentences with adverbs of time or place behave in the same way. With the initial sentence (29)

(29) Widziałem w oknie kobietę.

only (30) is possible

(30) Kobieta wyszła na ulicę.

(31) cannot follow (29) if we are talking about the same woman.

(31) Na ulicę wyszła kobieta.

Given (32) as the initial sentence

(32) Do domu, który obserwowałem, wszedł mężczyzna.

and two sequence sentences (33) and (34)

(33) Mężczyzna wyszedł o 3 : 00.
(34) O 3:00 wyszedł mężczyzna.

we will easily discover that only (33) may follow (32).

There are two interesting points here. One is that the shift of the time adverbial in (33) to the front does not change the interpretation of the noun from definite to indefinite.

A similar change of (34) to

(35) Wyszedł mężczyzna o 3:00.

renders a sentence which must have the contrastive stress on one of its elements. The position of the stress determines the interpretation (see section d).

A second interesting point is that no similar change is possible with time adverbials of duration, for example

(36) Mężczyzna szedł godzinę.
(37) Godzinę szedł mężczyzna.

(37) is possible only if it contains a contrastive stress.

The few examples presented here allow only for two indisputable but rather trivial conclusions and one interesting but tentative one. The two trivial conclusions are:

(a) contrary to the general belief word order in Polish is not free,
(b) it is used as one of the ways to express coreferentiality or noncoreferentiality which in English are indicated by the definite/idefinite article distinction.

The more interesting but tentative conclusion can be formulated as follows:

(c) nouns with indefinite interpretation appear in sentence final position only (unless explicitly marked indefinite in some other way). This is why the pronoun *ten* is obligatory with a noun in this position if the noun is to be interpreted as definite. Nouns with definite interpretation appear in non-final positions (again, unless explicitly marked otherwise).

There is one somewhat unexpected consequence of the above discussion. Any Polish linguist would agree that the passive of (38)

(38) Mężczyzna popchnął kobietę.

is (39)

(39) Kobieta została popchnięta przez mężczyznę.

Consider, however, (38) and (39) when preceded by (40)

(40) Ulicą szedł szybko mężczyzna.

Only (38) is correct as a sequence sentence of (40). (39) is impossible. Consider further (41) followed in succession by (38), (42) and (39) ((38) and (39) are repeated for convenience).

(41) Na ulicy stała kobieta.
(38) Mężczyzna popchnął kobietę.
(42) Kobietę popchnął mężczyzna.
(39) Kobieta została popchnięta przez mężczyznę.

It is immediately clear that (39) is the passive voice of (42) and not, as is generally assumed, of (38). I do not know what the passive of (38) is but I am sure it is not (39). This is in perfect agreement with conclusion c) above.

5. To complete the paper let me repeat the most important conclusions. Definiteness and indefiniteness in Polish may be accomplished in at least three ways: pronouns, intonation, and word order. It has been shown that in sentences with normal intonation word order plays a role in anaphoric processes in that a noun in sentence initial position is marked definite, a noun in sentence final position is marked indefinite, regardless of the syntactic function.

It has also been demonstrated that contrastive stress determines the interpretation of nouns in terms of definiteness and indefiniteness. It has been found that whenever the stress falls on the noun the latter becomes ambiguous in three ways, when the stress does *not* fall on the noun the latter id definite, although the influence of word order here is quite possible.

A general conclusion is that word order plays a crucial role in anaphora with the exception when the noun is accompanied by the demonstrative pronoun *ten*. Whether a similar conclusion can be drawn with respect to other pronouns remains to be investigated.

Let me also indicate a few areas of further research:

(a) other pronouns, their relation to word order and to the definite/indefinite distinction.
(b) genericness, its relation to pronouns, intonation and word order.
(c) word order in other structures, for example, in questions.
(d) the effect of quantifiers on definiteness and indefiniteness in relation to word order, intonation and pronouns.
(e) relations and dependencies between pronouns, intonation and word order from the point of view of the definite/indefinite distinction.

Examples

1. *Te najporządniejsze* też robią w łazience bałagan.
(These tidiest (fem.) also make in bathroom mess)
2. Byliśmy najpierw oglądać *ten Erfurt*.
(We were first to see this Erfurt)
3. Wykradł milicjantowi rewolwer. *Ten milicjant* siedział za to.
(He stole policeman (Dat) gun. This policeman was in prison for it)

4. Wykradł milicjantowi rewolwer. Milicjant siedział za to.
(He stole policeman (Dat) gun. Policeman was in prison for it)
5. Wykradł milicjantowi rewolwer. Siedział za to ten milicjant.
(He stole policeman (Dat) gun. Was in prison for it this policeman)
6. Wykradł milicjantowi rewolwer. Siedział za to milicjant.
(He stole policeman (Dat) gun. Was in prison for it policeman)
7. John hit Bill and then George hit him.
8. W pokoju siedziała dziewczyna.
(In room was stitting girl)
9. Wszedł chłopiec.
(Entered boy)
10. Chłopiec wszedł.
(Boy entered)
11. W pokoju siedział chłopiec.
(In room was sitting boy)
12. Chłopiec wyszedł.
(Boy went out)
13. Wyszedł chłopiec.
(Went out boy)
14. Na podwórzu bawił się piłką chłopiec.
(On courtyard was playing ball (Instr) boy)
15. Na podwórzu bawił się chłopiec z kotem.
(On courtyard was playing boy with cat)
16. Na podwórzu bawił się kot piłką.
(On courtyard was playing cat (Nom) ball (Instr))
17. Chłopiec dał kotu piłkę.
(Boy gave cat (Dat) ball (Acc))
18. Chłopiec dał piłkę kotu.
(Boy gave ball (Acc) cat (Dat))
19. Chłopiec piłkę dał kotu.
(Boy ball (Acc) gave cat (Dat))
20. Chłopiec kotu dał piłkę.
(Boy cat (Dat) gave ball (Acc))
21. Kotu chłopiec dał piłkę.
(Cat (Dat) boy (Nom) gave ball (Acc))
22. Kotu piłkę dał chłopiec.
(Cat (Dat) ball (Acc) gave boy (Nom))
23. Kotu dał chłopiec piłkę.
(Cat (Dat) gave boy (Nom) ball (Acc))
24. Kotu dał chłopiec piłkę.
(Cat (Dat) gave boy (Nom) ball (Acc))

25. Piłkę dał chłopiec kotu.
(Ball (Acc) gave boy (Nom) cat (Dat))
26. Piłkę dał kotu chłopiec.
(Ball (Acc) gave cat (Dat) boy (Nom))
27. Piłkę kotu dał chłopiec.
(Ball (Acc) cat (Dat) gave boy (Nom))
28. Piłkę chłopiec dał kotu.
(Ball (Acc) boy (Nom) gave cat (Dat))
29. Widziałem w oknie kobietę.
(I saw in window woman (Acc))
30. Kobieta wyszła na ulicę.
(Woman (Nom) went out on street)
31. Na ulicę wyszła kobieta.
(On street went out woman (Nom))
32. Do domu, który obserwowałem, wszedł mężczyzna.
(To house which I was watching went in man (Nom))
33. Mężczyzna wyszedł o 3:00.
34. O 3:00 wyszedł mężczyzna.
(At 3:00 went out man (Nom))
35. Wyszedł mężczyzna o 3:00.
(Went out man (Nom) at 3:00)
36. Mężczyzna szedł godzinę.
(Man (Nom) walked hour)
37. Godzinę szedł mężczyzna.
(Hour walked man (Nom))
38. Mężczyzna popchnął kobietę.
(Man (Nom) pushed woman (Acc))
39. Kobieta została popchnięta przez mężczyznę.
(Woman (Nom) was pushed by man (Acc))
40. Ulicą szedł szybko mężczyzna.
(Street (Instr) was walking quickly man (Nom))
41. Na ulicy stała kobieta.
(On street was standing woman (Nom))
42. Kobietę popchnął mężczyzna.
(Woman (Acc) pushed man (Nom))

REFERENCES

Akmajian, A. and R. Jackendoff. 1968. Squib. Mimeographed. The M.I.T. Press.

Chomsky, N. 1969. *Deep structure, surface structure and semantic interpretation.* Reproduced by the Indiana University Linguistic Club.

Pisarek, K. 1968. "Zaimek w polskim zdaniu. 2. Obserwacje przydawki zaimkowej". *Język polski* XLVIII. 12 - 33.

Szober, S. 1967 8th ed. *Gramatyka języka polskiego.* Warszawa: PWN.

A NOTE ON THE RELATION BETWEEN THE ARTICLE IN ENGLISH AND WORD ORDER IN POLISH

Part 1

ALEKSANDER SZWEDEK

University of Łódź

The aims of the following discussion are two. The first, and more general one, is to show how the English article is related to word order in Polish. The more particular but no less important, is to demonstrate that, contrary to widespread and advocated beliefs word order in Polish is not free and that it plays a role in anaphoric processes[1].

The present note is considerably limited in scope. It is impossible in one short report to describe and explain all problems involved here. An additional difficulty is the lack of practically any materials discussing the problems of *definiteness* and *indefiniteness* in Polish. The paper is limited in at least three respects:

a) Almost no theoretical background or explanation is provided.

The author fully agrees with Werner Winter (1965) that it is necessary to go through "the drudgery of painstaking collection of data before developing theories".

b) Pronouns, genericness and suprasegmental features have been excluded from the discussion. They require separate studies. The intonation assumed for all sentences here is that of a normal declarative type unless specified otherwise.

c) Only simple sentences are considered.

The description of the *article* in English will not be given for two reasons: the available descriptions can be found in Stockwell (1968); in agreement with what has been said in point a) above, out of the available descriptions we will choose the one which will best fit the facts. Different solutions are not excluded.

---

[1] This work was sponsored by the Center of Applied Linguistics, Washington, D. C., and Ford Foundation.

There would seem to be in Polish three ways in which the definite/indefinite distinction is accomplished:

a) pronouns,
b) intonation,
c) word order.

Very little can be found in Polish grammars about word order and its functions. For example, in Szober (1967, p. 320) we find only a few sentences about the problem. I will quote his description almost in full as it is closely connected with the present note (translation into English is my own).

"In the chain of speech or conversation the natural word order in sentences is arranged in such a way that first come words pointing to details already familiar to us from the preceding sentences, or from the external situation; last in the sentence come usually words describing a new detail. A word or a phrase which describes details binding the thought expressed in the sentence either with the external situation in which the sentence is uttered, or with the preceding thoughts of the speech or conversation may be called the identifying member of the sentence (...) A word or a phrase which introduces new details is the differentiating member of the sentence... In the process of mental activities first comes the process of identification, i.e. the formulation of the received perception or reproduced idea (single or collective) in terms of the already known ideas, and only then is it followed by a distinction of details individually connected with the given perception or idea. Since in Polish the word order is free, not fixed by any established linguistic habit, we move to the front the words functioning as the identifying part, no matter what their syntactic function is; the words constituting the differentiating part are moved to the end of the sentence, again no matter what their syntactic function is. So, for example, the sentence *Mickiewicz był największym poetą polskim* [Mickiewicz was the greatest Polish poet] can be uttered in two ways depending on the circumstances. If we use it in the chain of speech or conversation whose subject is Mickiewicz, the word order is: *Mickiewicz był największym poetą polskim*, since the idea of Mickiewicz is the starting point here, i.e. the identifying part of the thought expressed in the sentence. The same sentence used in the course of speech or conversation whose subject is great poets, sounds: *Największym poetą był Mickiewicz*, since the starting point here, i.e. the identifying part of the thought expressed in the sentence is the notion of great poets, and Mickiewicz is a detail differentiated in the category of that notion".

The only criticism that can be raised against this statement is that it is based on the example which contains definite noun phrases only. Hence the change in the word order seems to be merely stylistic.

To make my presentation simple I will proceed from a description of the simplest structures to more complex ones. At the end of this paper I will suggest some points of interest and indicate problems that will have to be solved in connection with the subject presented here. Word by word translations of Polish examples are provided. The following abbreviations are used: Nominative=Nom, Dative=Dat, Accusative=Acc.

Let us consider two sentences (2) and (3) consisting of S(ubject) and V(erb) only, one with S—V, the other with V—S order. The difference can be seen best if they are preceded by an initial sentence (1).

(1) W pokoju siedziala dziewczyna.
In room was sitting girl (Nom)

(2) Chłopiec wszedł.
Boy (Nom) entered

(3) Wszedł chłopiec.
Entered boy (Nom)

Both (2) and (3) are well-formed and grammatical, and yet only (3) can follow (1) to constitute a sequence. Likewise we cannot have a sequence (4) - (5). Only (4) - (6) is possible here.

(4) W pokoju siedział chłopiec.
In room was sitting boy (Nom)

(5) Wyszedł chłopiec.
Went out boy (Nom)

(6) Chłopiec wyszedł.
Boy (Nom) went out

Since (4) says that there was only one boy sitting (we may add the numeral *jeden* 'one' to make it clearer) in the room and the word order in (5) makes the noun indefinite and thus noncoreferential with the noun in (4) the whole situation becomes absurd.

The two examples allow for a formulation of a preliminary and tentative rule: final and initial sentence positions are reserved for indefinite and definite interpretations respectively.

It may be claimed that a noun in final position may have a definite interpretation as well, for example:

(6) Zasnął chłopiec.
Fell asleep boy (Nom)

There seem to be at least two situations in which (7) can be used. First, as a sequence sentence to something like (8)

(8) W pokoju siedziala dziewczyna i chłopiec. Dziewczyna
In room was sitting girl (Nom) and boy (Nom). Girl (Nom)
zażyła środek nasenny. ((7) Zasnął chłopiec)
took pill sleeping. Fell asleep boy.

with the implication that it was not the girl who fell asleep but the boy , although he hid not use the sleeping pill.

Secondly, as an answer to a question (9)

(9) Kto zasnął?
Who fell asleep?

In both cases, (8) and (9) we have to do with a contrastive stress on the noun which, then, has a definite interpretation. Since the problems of intonation with respect to definiteness and indefiniteness are outside the scope of the present paper and are discussed elsewhere (Szwedek, this volume) I will not discuss them any further.

Let us now proceed to some more complex cases involving two nouns in the same clause. With a direct object the examples are as follows:

(10) Kobieta wzięła książkę.
(Woman (Nom) took book (Acc))

(11) Książkę wzięła kobieta.
(Book (Acc) took woman (Nom))

The difference between them can be brought out best if they are placed in a context. (10) can appear only after something like (12)

(12) Do sklepu weszła kobieta.
(Into shop went woman (Nom))

And only (11) can follow (13)

(13) Na stole leżała książka.
(On table was lying book (Nom))

(12) followed by (11) is incorrect if we are talking about the same woman. Likewise, (13) cannot proceed (10) if the same book is meant.

The elements of (10) and (11) can appear in other arrangements:

(14) Kobieta książkę wzięła.
(Woman (Nom) book (Acc) took)

(15) Książkę kobieta wzięła.
(Book (Acc) woman (Nom) took)

(16) Wzięła kobieta książkę.
(Took woman (Nom) book (Acc))

(17) Wzięła książkę kobieta.
(Took book (Acc) woman (Nom))

Sentences (14 - 17) seem to have three features in common:

(a) They never constitute a single sentence, but enter into larger units, for example:

(18) Kobieta książkę wzięła ale nie była zachwycona.
(Woman (Nom) book (Acc) took but not was happy)

(19) Książkę kobieta wzięła ale nie była zachwycona.
(Book (Acc) woman (Nom) took but not was happy)

(20) Wzięła kobieta książkę i poszła do domu.
(Took woman (Nom) book (Acc) and went to home)

(21) Wzięła książkę kobieta i poszła do domu.

(Took book (Acc) woman (Nom) and went to home)

(b) They all seem to have contrastive stress on the verb.

(c) Both nouns in (14) - (17) are definite. This seems to depend on (b). An example of a sentence with two objects is

(22) Chłopiec dał kotu piłkę.
(Boy (Nom) gave cat (Dat) ball (Acc))

Out of the possible combinations of the elements of (22) only those will be discussed which seem more frequent. Such infrequent structures as

(23) Dał piłkę chłopiec kotu.
(Gave ball (Acc) boy (Nom) cat (Dat))
(24) Chłopiec piłkę kotu dał.
(Boy (Nom) ball (Acc) cat (Dat) gave)

will not be considered.

The structures which seem to me more frequent than (23) and (24) are the following:

(25) Chłopiec dał kotu piłkę.
(Boy (Nom) gave cat (Dat) ball (Acc))
(26) Chłopiec dał piłkę kotu.
(Boy (Nom) gave ball (Acc) cat (Dat))
(27) Chłopiec piłkę dał kotu.
(Boy (Nom) ball (Acc) gave cat (Dat))
(28) Chłopiec kotu dał piłkę.
(Boy (Nom) cat (Dat) gave ball (Acc))
(29) Kotu chłopiec dał piłkę.
(Cat (Dat) boy (Nom) gave ball (Acc))
(30) Kotu piłkę dał chłopiec.
(Cat (Dat) ball (Acc) gave boy (Nom))
(31) Kotu dał piłkę chłopiec.
(Cat (Dat) gave ball (Acc) boy (Nom))
(32) Kotu dał chłopiec piłkę.
(Cat (Dat) gave boy (Nom) ball (Acc))
(33) Piłkę dał chłopiec kotu.
(Ball (Acc) gave boy (Nom) cat (Dat))
(34) Piłkę dał kotu chłopiec.
(Ball (Acc) gave cat (Dat) boy (Acc))
(35) Piłkę kotu dał chłopiec.
(Ball (Acc) cat (Dat) gave boy (Nom))
(36) Piłkę chłopiec dał kotu.
(Ball (Acc) boy (Nom) gave cat (Dat))

The frames in which these sentences can be tested for the definiteness or indefiniteness of nouns are the following:

(37) Na podwórzu bawił się piłką chłopiec.
(In courtyard played ball (Instr) boy (Nom))
(38) Na podwórzu bawił się chłopiec z kotem.
(In courtyard played boy (Nom) with cat)
(39) Na podwórzu bawił się kot piłką.
(In courtyard played cat (Nom) ball (Instr))

We will find that (37) can be followed only by (26), (27), (33) and (36), that is by those in which the new (indefinite) noun is in the last position. The same with (38) which can be followed only by (25), (28), (29) and (32). (39) can be followed by (30), (31), (34) and (35).

Note that sequences like (40)

(40) Na podwórzu bawił się kot piłką. Chłopiec dał piłkę kotu.

are at least ambigous if not incorrect. First, *chłopiec* cannot appear in the first position unless he has been mentioned before. Secondly, *kot* in the second sentence is not understood as coreferential with *kot* in the first sentence. If it were it would appear in the first position as in (30).

Sentences with adverbials of place or time like (41) and (42)

(41) Kobieta wyszła na ulicę.
(Woman went out on street)
(42) Na ulicę wyszła kobieta.
(On street went out woman)

behave in a similar way. With (43)

(43) Widziałem w oknie kobietę.
(I saw in window woman(Acc))

only (41) can be used as a sequence sentence.

Given (44)

(44) Do domu, który obserwowałem, wszedł mężczyzna.
(Into house which I was watching went man(Nom))

and two sequence sentences (45) and (46)

(45) Mężczyzna wyszedł o 3 : 00.
(Man (Nom) went out at 3 : 00)
(46) O 3 : 00 wyszedł mężczyzna.
(At 3 : 00 went out man(Nom))

we will easily find that only (45) can follow (44); (46) is impossible if we are talking about the same man.

There are some interesting points here:

(a) The shift of the time adverbial in (45) to the first position does not change the interpretation of the noun from definite to indefinite

(47) O 3 : 00 mężczyzna wyszedł.
(At 3 : 00 man(Nom) went out)

A change of (46) to (48)

(48) Wyszedł mężczyzna o 3 : 00.
(Went out man(Nom) at 3 : 00)

renders a sentence which must contain a contrastive stress on one of the elements. The position of the stress determines the interpretation.

(b) The change of word order discussed above does not affect the interpretation of sentences with time adverbials of duration. In fact such a change is inconceivable with a simultaneous change of intonation, for example

(49) Mężczyzna szedł godzinę.
(Man(Nom) walked hour)
(50)* Godzinę szedł mężczyzna.
(Hour walked man(Nom))

The few facts that I have presented here allow only for two indisputable but trivial conclusions and one interesting but tentative one. The two trivial conclusions are the following:

I) contrary to the general belief word order in Polish is not free.
II) it is used as one of the ways to express the definite/indefinite distinction (i.e., to some extent, coreferentiality or noncoreferentiality) which in English is indicated by the article.

The interesting but tentative conclusion is that

III) nouns with indefinite interpretation appear in sentence final position only. Nouns with definite interpretation appear in positions other than final. This is valid for sequence sentences. In certain circumstances (e.g.contrastive stress) position seems to be irrelevant for the definite/indefinite distinction.

To conclude this scetchy and superficial description I would like to point to some problems that will have to be solved if a comparison of the article in English with its Polish equivalents is to be complete:

(a) word order shift in other constructions (e.g.questions).
(b) the relation of word order to pronouns and intonation. I think it would be particularly interesting to see which word order arrangements cannot appear without a contrastive stress (as, for example, (14) - (17) above)
(c) the relations between the pronominal and article functions of some pronouns (e.g. *ten* 'this', *jakiś* 'a, some').
(d) genericness and its relation to the definite/indefinite distinction.
(e) the influence of modifiers, quantifiers, etc. on the definite/indefinite distinction.
(f) the definite/indefinite distinction of nouns in adverbial phrases and its relation to word order shifts.
(g) dependency of the definite/indefinite interpretation on the position of a noun in relation to other nouns and to the verb.

REFERENCES

Doroszewski, W. 1952. *Podstawy gramatyki polskiej*. Warszawa: PWN.

Klemensiewicz, Z. 1963. *Zarys skladni polskiej*. 4th ed. Warszawa: PWN.

Lewicki, A. M. (ed.). 1971. *Problemy składni polskiej*. Warszawa: PWN.

Stockwell, R. P., B. Schachter, B. Hall Partee. 1968. *Integration of transformational theories on English syntax:* UCLA.

Szober, S. 1967 *Gramatyka języka polskiego*. 7th ed. Warszawa: PWN.

Winter, W. 1965. "Transforms without kernels?" *Language* 41. 484 - 489.

A NOTE ON THE RELATION BETWEEN THE ARTICLE IN ENGLISH AND WORD ORDER IN POLISH

Part 2 (questions)

ALEKSANDER SZWEDEK

University of Łódź

At the end of the first part of the Note (Szwedek 1972a) I suggested a few problems to be investigated within the study of Polish equivalents of the English article[1]. Among others I mentioned word order in questions. The present paper attempts to describe a few facts concerning this problem.

YES-NO questions

According to the traditional point of view we would expect that word order in the following two questions (read with a normal interrogative intonation)

(1) Czy w pokoju siedziała dziewczyna?
(Whether in room was sitting girl)
(2) Czy dziewczyna siedziała w pokoju?
(Whether girl was sitting in room?)

is irrelevant, and that they mean the same. We will find, though, that this is not the case, and that (1) can be used as a sequence sentence to

(3) Wszedłem do dużego pokoju.
(I entered to large room)

but not to

(4) Wśród ludzi na korytarzu szukałem dziewczyny.
(Among people on corridor I was looking for girl)

which, in turn, can only be followed by (2).

---

[1] This work was sponsored by the Center of Applied Linguistics, Washington, D. C. and Ford Foundation.

In both (1) and (2) the NP's preceding the verb are coreferential with the NP's in final position in (4) and (3) respectively.

For (1) (with the same intonation) another reading seems to be possible. The initial sentence, then, could be something like

(5) Widzisz tu dziewczynę i chłopca.
(You see here girl and boy)

It is obvious that the two interpretations have two different meanings — noncoreferential (indefinite) and coreferential (contrastive) (both, of course, are alternative questions). It is only superfluous to say that the choice of one interpretation or the other depends on the preceding context. It may also be indirectly connected with whether the two sentences are uttered by the same speaker — which seems to be the case with the sequence (5) - (1) — or by two different speakers, as it seems to be the case with the sequence (3) - (1). The investigation of such a possibility is beyond the scope of the present paper.

The conclusions of this very short discussion are as follows: in YES-NO questions

I) the NP preceding the verb in the sequence question is coreferential with the NP in the initial sentence.
II) the NP in final position in the sequence question has two interpretations:
a) a more general, noncoreferential one.
With (3) as the initial sentence, (1) is, then, paraphrased as

(6) Czy w pokoju siedziała jakaś dziewczyna czy ktoś inny?
(Whether in room was sitting some girl whether somebody else?)

b) a more specific, coreferential one, with limited choice.
(1) is, then, paraphrased as

(7) Czy w pokoju siedziała dziewczyna czy chłopiec?
(Whether in room was sitting girl or boy?)

III) The difference between IIa and IIb depends on the preceding context.

The facts presented above lead to a more general observation explaining the difference between examples (1) and (2). First we have to note that there is a NP-alternative in (1) and no such alternative exists for the NP under consideration in (2) (unless the stress is changed). Thus it is quite natural to hear

(3) Wszedłem do dużego pokoju. (6) Czy w pokoju siedziała dziewczyna
(I went in to large room. Whether in room was sitting girl
czy ktoś inny (or czy chłopiec)?
whether somebody else (whether boy))?

while we cannot have a sequence like

(4) Wśród ludzi na korytarzu szukałem dziewczyny. (8) Czy dziewczyna
(Among people on corridor I was looking for girl. Whether girl
siedziała w pokoju czy chłopiec?
was sitting in room whether boy?).

Instead we expect

(9) Czy dziewczyna siedziała w pokoju czy na schodach?
(Whether girl was sitting in room whether on stairs?),

i.e. we have the last element alternation. This is also valid for verbs, for example

(10) Czy płakała dziewczyna czy chłopiec?
(Whether was crying girl whether boy?)

but (11) Czy dziewczyna płakała czy się śmiała?
(Whether girl was crying or laughing?).

It is interesting to see that in all the examples above the intonation structure remains unchanged, but with the change of the word order the relation of the intonation to the sentence structure becomes different, rendering different semantic readings. Notice that if the sentence stress stays with the word the meaning of the sentence remains the same regardless of word order (see examples (12) and (13) below).

Since alternation in YES-NO questions is connected with the last element it becomes clear why there can be only one, coreferential interpretation of the NP preceding the verb.

Since word order shifts are normally impossible in English the distinction discussed above must be expressed in a different way. It is intonation. Intonation is available for the same distinction in Polish, too. For example, (2) with sentence stress on *dziewczyna* can be paraphrased as

(12) Czy dziewczyna siedziała w pokoju czy ktoś inny?
(Whether girl was sitting in room whether somebody else?),

and with the stress on the verb, as

(13) Czy dziewczyna siedziała w pokoju czy stała?
(Whether girl was sitting in room whether standing?),

and (2) with the stress on *w pokoju* can be paraphrased as (9).

Specific questions

In view of what was said in Szwedek (1972b) and about YES-NO questions above we would expect the difference between

(14) Kiedy chłopiec wyszedł?
(When boy left?)

and (15) Kiedy wyszedł chłopiec?
(When left boy?)

to be the same as between, for example

(16) Kobieta wyszła z domu.
(Woman went out from house.)
and (17) Z domu wyszła kobieta.
(From house went out woman.) (Cf. Szwedek 1972b)

Analysing (14) and (15) we note that they are not synonymous.
(14) may be a sequence sentence to, for example

(18) O godz. 10^{00} do domu wszedł chłopiec.
(At 10 : 00 into house went boy.)
and (15) a sequence sentence to, for example
(19) O godz. 10^{00} do domu wszedł chłopiec i dziewczyna.
(At 10 : 00 into house went boy and girl.)

It is clear that specific questions are similar to YES-NO questions in that

a) the sentence stress falls on the last word (at least in the examples in this paper),
b) word order expresses a similar difference in that the last NP in the question implies a choice. Except that (15) has only one, contrastive (and coreferential) interpretation.

It is worth noting that there are cases in which the last NP can have two interpretations. Compare

(20) Kiedy chłopca widziałeś?
(When boy you saw?)
and (21) Kiedy widziałeś chłopca?
(When you saw boy?)

(20) is clearly coreferential with the NP in an initial sentence.
(21) seems to have two interpretations:

a) coreferential (contrastive) with (22) as its initial sentence.
(22) Znam i chłopca i dziewczynę.
(I know and boy and girl.)

b) noncoreferential which in the case of (21) seems to be generic. Two remarks are in order with regard to b). First, genericness seems to depend on the verb and its form[2] since a generic reading is inconceivable for (15). Secondly, I suspect that there is a difference in intonation between the two readings the initial pitch being higher in b).

Leaving interpretation b) aside we may conclude that YES-NO questions and specific questions are alike in that

A) The NP preceding the verb always has a coreferential interpretation (examples (2), (14), (20)) (the various possibilities offered by the application of contrastive stress are ignored here),

---

[2] I leave this statement as a mere suggestion here since a paper on genericness in English and Polish is in preparation and I hope to come to some more definite results.

B) the NP in the final position always presents an alternative (examples (1), (10), (15)).

They differ in that the NP in the final position in YES-NO questions has two readings while in specific question one reading. This is only natural since it is the nature of specific questionss to ask about details of some already mentioned object. Since, as I wrote before, it is the last element that is stressed and connects with the question word, in the case of final NP in specific questions (as in (15) and (21)) the only possible interpretation is the coreferential one.

In view of what was said in my-earlier paper (Szwedek 1972b) and above, an interesting conclusion may be drawn about the **na**ture of the change of the word order. The significance of the change of the word order does not consist in the change itself but in that it alters the relations between the segmental and suprasegmental structures of the sentence[3].

REFERENCES

Szwedek, A. 1974.a "A note on the relation between the article in English and word order in Polish". *Papers and studies in contrastive linguistcs* 2. Poznań: Adam Mickiewicz University.

Szwedek, A. 1974.b "Some aspects of definiteness and indefiniteness of nouns in Polish" *Papers and studies in contrastive linguistics* 2. Poznań: Adam Mickiewicz University.

---

[3] In Polish two possibilities exist with regard to the above mentioned relation. Either the word order changes and the intonation structure remains or vice versa. In English there is only one way — to change the intonation structure.

SOME REMARKS ON GENERIC RELATIVE CONSTRUCTIONS IN ENGLISH AND POLISH

IRENEUSZ JAKUBCZAK

Polish Academy of Sciences, Poznań

In the following discussion we are going to employ the term "generic" in a sense slightly different from that generally employed. The usual meaning of the term can be found, for instance, in The Shorter Oxford English Dictionary (1965 : 784): "applied to a large group or class of objects". Rather, we will follow Jespersen (1928 : 62), with whom "generic" also means "applied to a group or class of objects" (not necessarily large) with the modification that it also carries the additional meaning: "indifference of choice". We do that because Jespersen uses the term with reference to a class of relative clauses in English.

We will concentrate on relative clauses which, after Polański (1967 : 76), we shall call substitutional. These will be relative clauses which can stand for one of the pronominalizable parts of speech: noun, adjective and adverb. Substitutional relative clauses can be introduced by independent relative pronouns (those that lack an antecedent), such as the English *what* or by anaphoric relative pronouns (those that can have an antecedent), such as the English *he who* or the Polish *ten, kto*.

The following constructions will be regarded as generic:

A.

E. If so, please order whatever is appropriate. I am indifferent to these things(AW-ASA). Don't you regard Stokesay at all. You break your ankle whenever you come to a country-house party(AW-ASA). ... whoever of us survives the other should commit the story to paper(AW-ASA).

P. Cokolwiek mają, niosą na wymianę (SS-DB). Ktokolwiek wspomni o tym, dostanie porządnie po głowie (SS-DB). Gdziekolwiek nocny krzyk świadczy o cierpieniu, wnet zjawia się ... doktor Kościuszko (SS-DB).

B.

E. It's your birthday. You choose what you like(AW-ASA).
P. Rób, co (tylko) chcesz. Możesz iść, gdzie ci się (żywnie) podoba.

C.

E. I'm past all that or superior to it or whatever you like(AW-ASA).
P. Możesz tańczyć, z kimkolwiek chcesz.

The above examples show that generic meaning can be achieved in one of the three ways:

a) by attaching to a relative pronoun the adverb *ever* in English and the particle *-kolwiek* in Polish. The respective rules for the derivation of such compound relative pronouns will be as follows:

E.
(1) X+Y+(R+Z)
(2) R→what, who, when, where...
(3) R⌢ever———whatever, whoever, whenever, wherever...

P.
(1) X+Y+(R+Z)
(2) R→co, kto, kiedy, gdzie...
(3) R⌢kolwiek→ktokolwiek, cokolwiek, kiedykolwiek...

A few remarks should be added at this point. The rules are mechanical because they do not specify under which conditions the attachment of the generic morphemes is possible. We are not going, however, to elaborate on this point since the problem needs an extensive treatment.

The rules will not yield a formation such as **as ever* in English and **jakkolwiek* in Polish although their simple counterparts *as* and *jak* respectively are used as relative pronouns in substitutional relative clauses. The first (i.e. **as ever*) will be rejected on the grounds that only combinations like *as ever* are acceptable, e.g. *The wind was as strong as ever* in which *ever* expresses time relation only, or *ever* can be used as an intensifier of a verb as in *Work as hard as ever you can.*

We reject the Polish **jakkolwiek* for the reason that it is not used as a relative pronoun. Thus the sentence **Zrób to, jakkolwiek chcesz* is unacceptable at least in my idiolect. One of the acceptable constructions which *Jakkolwiek* can enter would be *nie lubię go, jakkolwiek nigdy mu tego nie powiedziałem* (I do not like him although I have never told him that). *Jakkolwiek* functions here as a conjunction introducing a concessive clause which acts as a modifier of the preceding clause.

The rule yielding compound relatives in English is obligatory for the relative pronoun *who*, which is now regarded archaic. It is still preserved only in petrified constructions like proverbs and sayings:

Who breaks pays (prov.).

Whom God will destroy, he first makes mad (prov.).

b) by the introduction of special verbs into relative clauses.

They are:

E. like, choose, please, prefer...

P. chcieć, woleć, podobać się...

Relative clauses in Polish containing one of the verbs named contain special optional adverbs like: *tylko* or *żywnie*. *Tylko* can appear with all the verbs enumerated. *Żywnie* seems to appear with *podobać się* only.

c) by combining (a) and (b) together.

The need for setting up the category of generic relative clauses will become obvious when we trace their distinctive features. First, although the verbs occurring in generic constructions are: the E. *like* and the P. *podobać się* we cannot speak in this case about personal feelings of the person concerned. The English sentence

(a) E. Take what you like.
P. Weź, co (tylko) chcesz.

shows no reference to the feelings of the person concerned. We can prove that by negativizing the relative clause

(b) E. Take what you do not like.
P. Weź, czego nie lubisz.

Negativization provides here a completely different meaning. While (a) means *I allow you to take anything; I don't care what,* (b) means that *I advise you to take those things only which you do not like.* We may conclude that (b) is not the negative version of (a) on semantic grounds. Non-equivalence of (a) and (b) is evidenced in the respective Polish translations. In (b) the Polish equivalent sentence contains the verb "lubić" which does express personal feelings in this case, but it also has specific reference.

Another piece of evidence for a different character of generic relative clauses will be adduced from the domain of syntax. We will consider the behaviour of independent and anaphoric relative pronouns. Thus

E. You may dance with whom you like (allowing for the archaic character of the construction).

P. Możesz tańczyć, z kim (tylko) chcesz.

would be different in meaning from the respective constructions containing anaphoric relative pronouns

E. You may dance with the one who(m) you like.

P. Możesz tańczyć z tym, którego lubisz.

The first pair of sentences implies that the person concerned may dance with anybody. The second pair implies that the person concerned may dance only with the person he/she likes. The difference is clearly marked in Polish, where the verb in the relative clause of the second group is *lubić* and not *chcieć* and the relative pronoun is *który*, which is usually specific in reference in its singular form while *kto* is usually non-specific; hence the choice. The difference is also indicated by the impossibility of introducing *tylko* or *żywnie* into the relative clause.

The general structure of generic relative clauses can be as follows

$$N_1+V_1+\left[R\begin{pmatrix}\text{E. ever}\\ \text{P. -kolwiek}\end{pmatrix}+\underset{2}{N_2}+V+(V_{2\ \text{inf.}})\right]$$

Condition: $N_1=N_2$ and $V_1=V_2$

As such generic relative clauses are a subset of those substitutional relative clauses in which the main clause verb is reproduced in the infinitival form in the relative clause as in

E. I said what I meant (to say)

P. Powiedziałem, co zamierzałem (powiedzieć).

Generic relative clauses differ from other relative clauses semantically. The main clause verb is very often in the imperative

E. Take what you like.

P. Weź, co (tylko) zechcesz.

The imperative construction is synonymous to constructions in which permission is expressed. Thus E. Take what you like (Weź, co (tylko) chcesz) is synonymous to E. You may take what you like (Możesz wziąć, co (tylko) chcesz). We could postulate on the basis of these facts that the two sentences given have a common semantic structure marked (+permission). It is beyond the scope of this paper to attempt a formalism of this hypothesis or to adduce more evidence in its support. We may only state that we are concerned in this case with semantic neutralization between the imperative and the infinitive of a verb. Neutralization of this type exists in Polish in sentences expressing command, e.g. *Opuścić statek* (*Abandon ship*).

Although the main clause verb is most usually in the imperative, this is not a condition sine qua non. In the following construction the pronoun *you* in the main clause does not refer to a *second person*.

E. "Give me the telephone", I said. "It's quicker and you can say what you like"(JC-HM).

In fact the sentence is synonymous to

One can say what one likes.

In both cases the equivalent Polish sentences would be impersonal constructions

Można powiedzieć, co się (tylko) chce.

The last example shows that generic constructions do not impose restrictions on the class of possible verbs in the main clause. Actually, generic constructions help to disambiguate certain ambiguous verbs. These verbs are

E. say, tell, know...

P. powiedzieć, opowiedzieć, wiedzieć...

These verbs are ambiguous because they allow embedding of either interrogative or relative clauses though in the majority of cases it is interrogative clauses which are embedded after them. In the sentence

E. He told me what had happened.

P. Powiedział mi, co się wydarzyło.

the subordinate clauses *what had happened* and *co się wydarzyło* respectively are ambigous unless we set them against a wider context; though it is probably true that they would be interpreted as interrogative by most native speakers of the respective languages. Still, the relative interpretation is possible.

If a verb from the class already exemplified enters a generic construction, it becomes disambiguated and the subordinate clause is interpreted as relative.

E. Say what you like; he's proud (WG-S). I said ask what you like (WG-S).

P. Mów, co chcesz. To pyszałek (WG-W). Powiedziałem, że możecie pytać, o co chcecie (WG-W).

Disambiguation of these verbs can be explained on the basis of double co-referentiality: that of the noun and that of the verb from the main clause. For *ask what you like* has to be interpreted as the elided form of

You ask what you like to ask.

The conclusion would therefore be that certain verbs require the condition of being reproduced if the clause embedded after them is to be interpreted as relative. Such would be the case with the English *tell*, *say*, *know* and the Polish *opowiedzieć*, *powiedzieć*, *wiedzieć*... Other verbs do not need this condition. In the sentence

E. He took what she gave him.

P. Brał (to), co mu dawała.

the only co-referential element is this fragment of reality which is referred to by *what* and (*to*), *co* respectively.

Generic constructions can function as concessive adverbial modifiers:

E. Say what you like, women are a sex by themselves (JC-HM).

P. Mów co chcesz, kobiety to odrębna płeć (transl. is mine).

E. And say what you like, the epic is bigger than the lyric (JC-HM).

P. I możesz mówić, co chcesz ale epika jest czymś większym niż liryka (transl. is mine).

E. ... it was a difficult thing, do what he could, to keep the discourse free from obscurity (Jespersen 1928: 60).

P. ... było rzeczą trudną, chociaż robił, co mógł, utrzymać rozmowę wolną od niejasności (transl. is mine).

It is difficult to decide whether the generic construction functions here as a paratactic or a hypotactic modifier. The fact that it may stand alone or be left out without any syntactic or semantic restrictions would put it in the category of paratactic modifiers. Its position, on the other hand, would be in support of the view that it is hypotactic. Yet there are more reasons for treating it as a paratactic construction.

The respective Polish translations show that we are concerned here with modifiers which are concessive in meaning. The last Polish translation shows this best.

Another example of generic constructions functioning as concessive modifiers is provided by the sentences of the structure: come what Modal in which the main clause verb is in the subjunctive.

E. Come what might he would never leave John (AW-ASA).

P. Niech się dzieje, co chce, on nigdy nie opuści John'a (transl. is mine).

E. Come what may, I must raise the money.

P. Niech się dzieje, co chce, muszę zdobyć te pieniądze (transl. is mine)

The subjunctive mood in Polish is indicated by the particle ***niech***.

LIST OF ABBREVIATIONS

A. List of authors and books cited.
I. English.
  1. JC-HM: Joyce Cary — *The Horse's Mouth.*
  2. WG-S: William Golding — *The Spire.*
  3. WG-W: William Golding — *Wieża* (a Polish translation).
  4. AW-ASA: Angus Wilson — *Anglo — Saxon Attitudes.*
II. Polish
  1. SS-DB: Seweryna Szmaglewska — *Dymy nad Birkenau.*

B. List of grammatical abbreviations and symbols.
inf. — infinitive
N — noun
R — relative pronoun
V — verb
X, Y, Z — free strings
+ — does not imply internal order
$\frown$ — implies internal order

REFERENCES

Jespersen, O. 1928. *A modern English grammar on historical principles.* Vol. III. London: George Allen and Unwin Ltd.

Onions, C. T. (ed.). 1965. *The shorter Oxford English dictionary on historical principles.* Oxford: The Clarendon Press.

Polański, K. 1967. *Składnia zdania złożonego w języku górnołużyckim.* Wrocław-Warszawa-Kraków: Komitet Słowianoznawstwa PAN.

NOMINALIZATION IN ENGLISH AND POLISH — GENERAL REMARKS

BARBARA LEWANDOWSKA

University of Łódź

The present paper is an introductory part of a more extensive contrastive study on the problems of nominalizations in English and Polish[1]. The purpose of this introduction is to present the scope and the general assumptions concerning the subject, emphasizing the most typical structures in English and Polish, which will be dealt with in the subsequent parts of the study, and will appear in the form of separate papers.

All three main types of sentence, namely declaratives, imperatives, and interrogatives, can be embedded into a matrix clause both in Polish and English. During the process of embedding the nominalization rules map the terminal strings underlying them onto their surface structures that frequently differ from the form they would acquire as the topmost sentences.

Following the UCLA model of transformational-generative grammar (Stockwell et al. 1968) the modified Chomskyan version with Fillmore's case analysis will be retained throughout the present study. The following four types of nominalizations will be examined in the whole work:

1. Factive
2. Infinitival
3. Gerundive
4. Indirect Questions.

Derived nouns like: *proposal* — *propozycja*, *writing* — *pismo* in:

(1) His *proposal* made me angry.

(1a) Jego *propozycja* zezłościła mnie.

---

[1] This work is sponsored by Center for Applied Linguistics, Washington D. C., and Ford Foundation.

(2) His *writing* is difficult to read.
(2a) Jego *pismo* trudno odczytać.

as well as the class labelled "Action Nominals" (Lees 1960) e.g.

(3) *Painting* the floor is a hard job.
(3a) *Malowanie* podłogi to trudne zajęcie.

are taken here as lexically derived from the corresponding verbs, so should, in fact, fall out of the scope of the present investigation. The distinction between Action and Gerundive Nominals, however, though so vital for English, does not essentially exist in the Polish language, so in many cases it will be impossible to transfer these differences into the Polish examples. The Polish structure basically employs Action Nominals in the place of both Action and Gerundive ones in English. The relations between the English and Polish Action and Gerundive Nominal are the subject matter of the next paper of the present series. Certain tendencies towards gerundialization that can be observed in the contemporary Polish language nowadays will be signalled further in the present paper.

FACTIVE NOMINALS

The parameter of distinction between Factive vs. Non-factive Nominal assumes (Kiparsky and Kiparsky 1968), that in the case of factive predicate the speaker presupposes that the object or subject of the predicate is true, while for non-factive ones it is only the matter of assertion or belief, e.g.:

(4) It is odd that the door is closed.

(English examples taken from Stockwell et al. 1968, Nominalization: 3)

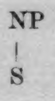
(4a) To dziwne, że drzwi są zamknięte.
(5) It isn't odd that the door is closed.
(5a) Nie jest dziwne, że drzwi są zamknięte.

vs. non-factive:

(6) I believe that the door is closed.
(6a) Wierzę, że drzwi są zamknięte.
(7) I don't believe that the door is closed.
(7a) Nie wierzę, że drzwi są zamknięte.

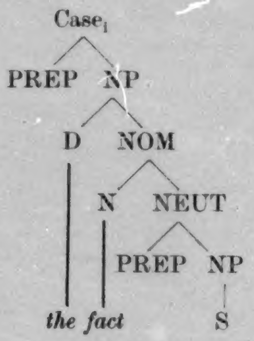
All nominalizations including the so-called Verb-complementation are assumed to have their deep structure of the form.

(8)



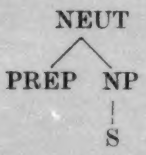
The difference between Factive and Non-factive Nominals lies in the higher part of the branching tree-diagram. The factive predicates do not have sentential objects but the object consisting of the phrase *the fact*, which itself takes an object in the form of a sentence. So their structure may be presented in the form of the following P-marker (Stockwell et al. 1968, Nominalization: 3):

(9)



The non-factive nominalization may appear in the derivation with any item except *fact*:

(10)



Non-factive nominals may be of two types:

1. generic:

(11) Writing grammars is not fun.
(11a) Pisanie gramatyk to nie żart.

2. a certain type of verb complements which appear as nominalized elements following a restricted number of verbs both in English and Polish:

(12) John avoids coming here.
(12a) Jan unika przychodzenia tutaj.

The differences between Polish and English in this respect are considerable. Compare:

(13) The dog started biting the shoe.

vs. ungrammatical or at least different Polish:

(13a) * Pies zaczął gryzienie buta. (Grzegorczykowa 1967: 129) where the infinitive *gryźć — bite* must obligatorily follow the verb *zacząć — begin* in the Polish sentence:

(13b) Pies zaczął gryźć but.

Both in English and Polish only factive predicates allow *that-S* or *Fact-that-S* nominalization as in the examples below:

(14) The fact that she solved the problem is significant (odd, tragic).
(14a) Fakt, że ona rozwiązała ten problem jest znamienny (dziwny, tragiczny).

(15) * The fact that she solved the problem is likely (true, sure).

(15a) * Fakt, że ona rozwiązała ten problem jest prawdopodobny (prawdziwy, pewny).

where (15) and (15a) are ungrammatical because of their internal logical contradiction.

The similar parameter, which keeps valid only for English, however, states that only the factives allow gerundive construction, e.g.:

(16) Her having solved the problem is significant.

(16a) Rozwiązanie tego problemu przez nią jest ważne.

or

(16b) Rozwiązanie tego problemu przez nią jest ważnym faktem.

or

(16c) Fakt rozwiązania tego problemu przez nią jest ważny.

vs. ungrammatical English:

(17) * Her having solved the problem is likely.

and the corresponding grammatical Polish sentence:

(17a) Rozwiązanie tego problemu przez nią jest prawdopodobne.

Since there is no perfective aspect in Polish that would be expressed similarly as the English *have-en* form, sentence (17a) is ambiguous, being either an equivalent of (17) in which sense it will not be grammatical in Polish either, or corresponding to the English:

(17b) Her solving of the problem is likely,

where *solving* functions as an action nominal and may indicate the action to be performed in future. If one tries to find a semantically identical form in Polish, that would correspond to (17), there should be suggested a sentence with the subordinate nominal *that*-clause:

(17c) * Fakt, że ona rozwiązała ten problem jest prawdopodobny.

The contradiction between *fakt* and *prawdopodobny* again makes this sentence unacceptable.

Sentential subject of non-factives must obligatorily stand in initial position both in Polish and English. In the case of sentential subjects of factives, this position is optional. Let's consider the following examples of factives (ex. 18 - 19a) vs. non-factives (ex. 20 - 21a)

(18) That he comes early amuses me.

(18a) Fakt, że on przychodzi wcześnie bawi mnie.

(19) It amuses me that he comes early.

(19a) Bawi mnie fakt, że on przychodzi wcześnie.

but:

(20) * That he comes early seems to me.

(20a) * Fakt, że on przychodzi wcześnie wydaje mi się.

(21) It seems to me that he comes early.

(21a) Wydaje mi się, że on przychodzi wcześnie.

The fact that neither in English nor in Polish the predicates in (20 - 21a) allow ***Fact-that-S*** nominalizations proves the non-factive status of this type of predicate in both the languages.

Concluding these remarks on factive nominalizations in English and Polish one should notice that the English complementizer *that* always corresponds to the Polish *że*, which is obligatorily preceded by ***fakt*** in Polish, and ***the fact*** in English (optional) if standing in sentence-initial position.

INFINITIVAL NOMINALIZATIONS

The derivation of the infinitival complements does not seem to be a single substitute of a sentential constituent by an infinitive but involves many intermediate stages reaching the deepest structure of the construction. The distinction between Emotive and Non-emotive predicates which is retained here following the UCLA model, is expressed for the emotive predicates by the subjective value of the preposition taking ***for*** in infinitival nominalizations in English which corresponds to the Dative ending of the Noun in infinitival, or preposition ***dla*** in the gerundive nominalizations in Polish, e.g.:

(22) It's difficult ***for*** me to solve the problem.
(22a) Jest *mi* trudno rozwiązać ten problem.
(22b) Rozwiązanie tego problemu jest ***dla*** mnie trudne.

The nominal constructions with infinitives in English are supposed to have their deep structure roughly of the form:

(23) I want (I go)⇒ I want to go.

The corresponding deep structure of the equivalent Polish string underlying the equivalent Polish sentence would be then:

(23a) Ja chcę (Ja idę)⇒Ja chcę iść.

The evidence that would justify such an analysis in Polish is rather scarce. It seems to some authors (Grzegorczykowa 1967: 129 - 30), however, that the constructions with the infinitive in Polish most often connote the narrowing of the semantic interpretation of the utterance when compared with the gerundive or action nominals. That is why there is no semantic identify between e.g.:

(24) Staram się przyjechać.
(24a) I'm trying to come.

and the constructions with the action nominal:

(25) Staram się o przyjazd.
(25a) I'm trying for somebody (not stated clearly for whom, may be also for myself) to come.

Such examples of the constructions with infinitives may constitute some evidence for the claim that in Polish an infinitive following a verb must have the co-referential subject with the preceding verb in the deep structure.

The next type of infinitival nominalization represented in English by:

(26) I want him to go.

requires an object clause in the Polish equivalent structure:

(26a) Chcę, $\begin{Bmatrix}\text{żeby}\\ \text{aby}\\ \text{by}\end{Bmatrix}$ on poszedł.

Equally frequently when the infinitive refers to the action performed not by the subject but by the object of the verb, i.e. in the case of causal constructions, the actions expressed by the subject and the object of the verb are expressed by separate lexical units both in Polish (Grzegorczykowa 1967: 125) and English:

(27) I must go.
(27a) Muszę iść.
(28) I made him go.

with the corresponding infinitival construction in Polish:

(28a) Kazałem mu iść.

or the subordinate clause:

(28b) Kazałem, aby szedł.
(29) I can do it.
(29a) Mogę to zrobić.
(30) I enabled him to do it.

with the equivalent gerundive nominal in Polish:

(30a) Umożliwiłem mu zrobienie tego.

Sentences (27a) and (28a) are the only instances then, where the English infinitival nominal is equivalent to the identical infinitival structure in Polish.

The last problem worth mentioning at this point refers to the variation of the infinitive — nomen actions type. In Polish the latter one is preceded by a preposition in the majority of cases. Not all infinitival forms, however, seem to be acceptable in English:

(31) Zdecydował się *powiedzieć* prawdę.
(31a) He decided *to tell* the truth.
(32) Zdecydował się na powiedzenie prawdy.
(32a) He decided *on telling* the truth.

but:

(33) Przywyknął *chodzić* wcześnie spać.
(33a) *He got used *to go* to bed early.
(34) Przywyknął do wczesnego chodzenia spać.
(34a) He got used *to going* to bed early.

Some other structures of the same type showing some idiosyncretic qualities of distribution seem to have equivalent forms in Polish, e.g.:

(35) He remembers *to do* it.

(35a) On pamięta, aby to *zrobić* (że ma to *zrobić*).

with the infinitive in the adverbial clause, or:

(35b) On pamięta *o zrobieniu* tego.

with the action nominal preceded by a preposition. Both (35a) and (35b) are equivalent to (35).

(36) He remembers *doing* it.

(36a) On pamięta *robienie* tego.

where the gerundive nominal in the Polish example is used much less frequently than the equivalent construction with an object clause:

(36b) On pamięta, że to zrobił.

with the corresponding English version:

(36c) He remembers that he has done it.

GERUNDIVE NOMINALS

Gerundive nominals sensu stricto are rare in Polish. The English gerundives have the corresponding equivalent forms in Polish in the form of the so-called substantivum verbale (verbal-substantive phrases) that may be also referred to as action nominals. As a class they will be discussed separately, while at this point certain tendencies towards their gerundivalization in Polish will be pointed out (Damborskỳ 1965: 154 - 157).

1. They can be modified by adverbs of manner.

e.g.:

(37) śpiewanie dobrze

(37a) singing well

2. The introduction of the reflexive pronoun:

(38) całowanie się

(38a) kissing each other

3. The usage of subjective Dative:

(39) dostarczanie książek samemu
[Dat.]

(39a) supplying the books by oneself

4. The usage of Accusative following the comparative conjunction *jako* preceded by a nominalized item: (Damborskỳ 1967: 227)

(40) traktowanie tego jako warunek rokowań

besides

(41) traktowanie tego jako warunku rokowań

(40a) and (41a) treating it as a condition for negotiation

$$\left\{\begin{matrix}\text{Accusative}\\ \text{Genitive}\end{matrix}\right\}$$

INDIRECT QUESTIONS

Indirect Questions will cover the class of embedded interrogatives in the present study. The necessity of distinction between true embedded questions (ex. 42, 42a) and pseudo-embedded questions (ex. 43, 43a) has been already pointed out in the UCLA grammar, (stockwell 1968, Nominalization: 69), e.g.:

(42) I don't *remember* what has happened.

(42a) Nie pamiętam co się stało.

vs.

(43) I don't *like* what has happened.

(43a) Nie podoba mi się to co się stało.

As can be seen then, both in Polish an English a different verb introducing the subordinate structure is used to distinguish between the true embedded interrogative and pseudo-embedded question. The problem of differentiating between embedded interrogative (ex. 44, 44a) and relative clause (ex. 45, 45a) seems to be vital in both the languages too.

(44) I don't know who was in the room.

(44a) Nie wiem kto był w pokoju.

(45) I don't know the person who was in the room.

(45a) Nie znam osoby, która była w pokoju.

The characteristic feature of the constructions with relative clauses is that the basic strings of their deep structure must contain an identical element which will be a subject to relativization. The occurrence of an embedded question in a given position on the other hand seems to be caused by the presence of some lexical morphemes in the matrix clause which allow the embedding of the interrogative constructions into the matrix constituent (K. Polański 1967: 82).

The embedded questions may be subject to infinitivalization under the condition of co-referentiality of NP's in subject position in the matrix clause and embedded question as well as the constraint on the auxiliary which must be future in the indirect question (Stockwell 1968, Nominalization: 71). This results in Equi-NP-Deletion and Infinitive-Introduction. Stockwell in his paper (1968: 71) postulates the following derivation of the infinitivalized indirect question in English:

(46) a. I don't know — what will I do
b. I don't know what I will do
c. I don't know what to do

(46a) a. Nie wiem — Co będę robić
b. Nie wiem co będę robić
c. Nie wiem co robić.

(47) a. I didn't take into account — How would I do it

b. I didn't take into account how I would do it
c. I didn't take into account how to do it
(47a) a. Nie wziąłem pod uwagę — Jak będę to robić
b. Nie wziąłem pod uwagę jak będę to robić
c. Nie wziąłem pod uwagę jak to (z)robić.

The infinitival reduction suggested above may, however, raise some objection concerning the postulated paraphrase relations between the constructions with embedded questions and the corresponding infinitival structures. The constructions with embedded questions of the type given in (46, 46a) and (47, 47a) seem to contain both in English and Polish some more evident implication as to the possible completing of the action described in the dependent question.

(46) b. I don't know what I will do.
(46a) b. Nie wiem co będę robić.

are, according to the tradition in TG, generated from:

(46) b_1. I don't know — I will do WH something
(46a) b_1. Nie wiem — Będę robić Int. coś

The clauses with the infinitival reduction, on the other hand, seem also to contain the possible alternative denial of completing the action in the infinitival structure.

(46) c. I don't know what to do.
(46a) c. Nie wiem co robić.

seem to contain the possible implication.

(46) c_1. It is possible that I won't do anything.
(46a) c_1. Możliwe, że nic nie będę robić.

The above observation may suggest some closer relation between the infinitivalized type of dependent questions and the alternative interrogative constructions.

The other remark I would like to add at this point refers to the infinitivalized embedded questions with some other constructions embedded into them. The embedding of an adverbial clause of the final type into the embedded question, naturally requires different constituent strings in the basic structure of the construction with an embedded question. What is interesting, however, is the fact that this process seems to be completed apart from the requirement of the co-referentiality of NP's and the future auxiliary in the dependent question.

Sentences:

(48) I didn't take into account how to do it to make it work
(48a) Nie wziąłem pod uwagę jak to zrobić, aby to działało

or

(49) I don't know where to go to get it

(49a) Nie wiem dokąd pójść, aby to dostać

do not necessarily suggest the occurrence of the co-referential *I* in (48, 49) and *ja* in (48a, 49a) in the dependent question. Neither do they seem to obligatorily assign the future marker to the auxiliary in it. The paraphrase relation holds rather between (48, 48a), (49, 49a) and $(48, 48a)_1$, $(49, 49a)_1$ respectively:

$(48)_1$ I didn't take into account how one should do it to make it work
or I didn't take into account how it should be done to make it work

$(48a)_1$ Nie wziąłem pod uwagę jak należy to zrobić, aby to działało
or Nie wziąłem pod uwagę jak powinno się to zrobić, aby to działało
or Nie wziąłem pod uwagę, jak to powinno być zrobione, aby to działało.

and

$(49)_1$ I don't know where one should go to get it
$(49a)_1$ Nie wiem dokąd należy (powinno się) pójść, aby to zdobyć.

The final observation on infinitivalization of embedded questions refers to the interrogative clauses with *why*. Both in English (Stockwell, Nominalization: 71) and Polish they disallow infinitival reduction, though in the intuition of the native speakers the Polish example with the infinitive in perfective aspect seems to be more acceptable:

(50)* She knows why to do it.
(50a)* Ona wie dlaczego to robić.
(50b)* Ona wie dlaczego to zrobić.

To conclude these few remarks on nominalization in Polish and English one further comment will be here added to signal the phenomenon of equivalence between the markers serving to introduce nominalized complements in both languages. These so-called complementizers (Rosenbaum 1965) have, as could be noticed in the examples above, the following forms in English: *that* or *the fact that* for factive nominalizations, *for-to* for infinitival, *-ing* for gerundives, and the variety of interrogative pronouns marked with the [Wh] feature in their lexical matrices, for indirect questions. The corresponding class of complementizers in Polish contains the following markers (Rothstein 1966: 23): *że* and *fakt, że* or *to, że* for factives, Inf *-ć* for infinitival phrases, *żeby* (*aby, by*) for embedded object clauses equivalent to infinitives in meaning, Nom $\begin{Bmatrix}\textit{-enie}\\ \textit{-anie}\\ \textit{-ecie}\end{Bmatrix}$ for verbal-substantive phrases, most often corresponding to the English gerundive and action nominals, and the interrogative pronouns for embedded questions.

REFERENCES

Buttler, D. 1968. "Połączenia typu *ulec zniszczeniu*", *Poradnik językowy* 7. 349 - 359.

Chomsky, N. 1965. *Aspects of the theory of syntax*, Cambridge, Mass.: M.I.T. Press.

Damborský, J. 1965. "Nad książką *O kulturę słowa*", *Poradnik językowy* 4. 151 - 168.

Damborský, J. 1967. "Polskie konstrukcje gerundialne z *jako*". *Biuletyn PTJ* XXV. 227 - 232.

Gal'ster, I. 1961. "Nekotorye russkie konstrukcii s infinitivom i ich sootvestvija v pol'skom jazyke". *Voprosy prepodavanija russkogo jazyka v stranach narodnoj demokratii*. Moscow.

Grzegorczykowa, R. 1967. "O konstrukcjach z bezokolicznikiem przyczasownikowym", *Biuletyn PTJ* XXV. 123 - 132.

Kiparsky P., and C. Kiparsky, 1968. *Fact*, unpubl. paper. M.I.T. Press.

Lees, R. B. 1960, *The grammar of English nominalization*, The Hague: Mouton.

Misz. H. 1960. "O pewnym rodzaju użycia bezokolicznika w dzisiejszym języku polskim". *Zeszyty naukowe Uniwersytetu Mikołaja Kopernika w Toruniu, Nauki humanistyczno-społeczne* 3 (Filologia Polska II).

Otfinowski, A. 1971. *Rzeczownik odsłowny ze stanowiska syntaktycznego (W zakresie użyć gerundialnych bez przyimka i z przyimkami: do, dla)*, unpubl. Ph. D. diss., Uniw. im. M. Kopernika, Toruń.

Polański, K. 1967. *Składnia zdania złożonego w języku górnołużyckim*. Warszawa: PWN.

Puzynina, J. 1969. *Nazwy czynności we współczesnym języku polskim*. Warszawa: PWN.

Rosenbaum, P. S. 1965. *The grammar of English predicate complement constructions*. Ph. D. diss. Cambridge, Mass.

Rothstein, R. A. 1966. *Predicate complementation in contemporary Polish*. unpubl. Ph. D. diss., Harvard Univ., Cambridge, Mass.

Stockwell R. P., Schachter P. and B. Hall Partee. 1968. *Integration of transformational theories on English syntax*. UCLA.

Wierzbicka, A. 1962. "Hipotaksa i konstrukcje nominalne w rozwoju polszczyzny". *Pamiętnik literacki* LIII. 1. 195 - 216.

NOUN OBJECTS IN POLISH AND IN ENGLISH

JERZY ADAMKO

Maria Curie-Skłodowska University, Lublin

As a syntactic item in Polish and in English, the object is of sufficient importance to merit separate attention. Therefore, a comparison of objects in the two languages may prove useful for both pragmatic and theoretical purposes. This brings forth the question of identifying the object in the languages under consideration. English differentiates the object from other sentence elements by position. A noun phrase that occupies the place immediately after a transitive verb is considered an object (Thomas 1967: 34, 121; Zandvoort 1962: 199 and Scheurweghs 1961: 11). In Polish it is not position that assigns noun phrases to the category of object but case. Noun phrases that appear as objects complementing verbs assume the oblique cases whose choice is determined by a given verb. Contrary to English, a Polish verb that can be complemented by an object can be intransitive as well. Polish and English also differ in the kinds of objects they recognize. While the former distinguishes only two objects — the direct and indirect object, the latter, besides recognizing these two, also distinguishes the prepositional object and the objective complement. This fact makes it obvious that there cannot be a one-to-one correspondence between the languages in question with respect to the object. The present paper will be concerned with a discussion of the kinds of objects in both languages and the relationship between them. As, however, noun phrases in either language that serve as objects comprise various parts of speech, each having its syntactic peculiarities, this paper has been confined to signalling certain problems pertinent to noun objects only.

The relationship between the predicate and its noun object cannot be presented adequately by one formula for the two languages. In English this relationship may be rendered as follows:

VERB+noun object in the common case

Polish requires a different formula, namely

VERB+noun object in the genitive
VERB+noun object in the dative
VERB+noun object in the accusative
VERB+noun object in the instrumental

because, as has been said earlier, Polish verbs determine the case of objects that complement them. It should be added that the verb-object order of the formula for Polish does not exclude other positions that the object can occupy. The present arrangement of the formula has been adopted because the predicate-object order is the neutral order in Polish. The English learner of Polish is then not likely to have serious difficulties with the position of noun objects in his target language. A greater problem will arise when it comes to cases. To make the correct choice of the case, the learner of Polish must learn which cases are assumed by noun objects with individual verbs. This problem does not confront the Polish learner of English as such inflection is absent from the structure of English. Still, he may be prone to other mistakes: instead of placing the object in an English sentence immediately after the verb, he will insert it into other positions permitted by the Polish word order (e.g. after the adverbial modifier or before the predicate).

What has been said so far has been of a general nature. Problems pertaining to particular kinds of objects in Polish and English will accordingly be dealt with under the headings of direct object, indirect object, prepositional object, and objective complement.

DIRECT OBJECT. Both Polish and English recognize this type of object. To identify it, English employs the positional criterion. A noun (or a noun-headed construction) that appears immediately after the verb is considered a direct object when the noun is by itself, as only the direct object can occur alone in English (Reszkiewicz 1966: 31). The position immediately after the verb is also occupied by the direct object when it appears with a verb that requires an objective complement. Of two nouns complementing such a verb, the first is the direct object, (Francis 1958: 349) the other is the objective complement. When two nouns complement other verbs, the second will be the direct object (Kufner 1969: 43; Scheurweghs 1961: 16; see also Jespersen 1965: 257; Francis 1958: 351 and Reszkiewicz 1966: 33), the first being the indirect object. Needless to say, only transitive verbs are being considered here. Another criterion that serves to identify the direct object is what may be called a 'subject-convertibility' test, whereby only that object which becomes the subject of a given sentence once it has been changed into the passive is counted as the direct object. The application of the test to English is limited because the indirect object, as will be seen later, reacts positively to this test in a number of sentences.

If the subject-convertibility test is of secondary importance in English, in Polish it is considered the major criterion which serves to indicate the direct object (Szober 1969: 310; Doroszewski 1964: 194 and see Wierzbowski 1962: 121). This implies that direct objects can complement only transitive verbs in Polish as well. Since Polish verbs require their objects in the oblique cases, those serve as another criterion of identification. The direct noun object in Polish may take one of the following three cases, depending on a given verb: the accusative, the genitive, and the instrumental.

The direct object in the accusative is by far the most common with verbs. An exhaustive list of these verbs, however, is beyond the scope of this paper.

The genitive is assumed by the direct object when the object is used (Doroszewski 1964 : 194 - 5):

a) partitively or quasi-partitively as in *kupilem* mięsa (genitive), *pożycz mi* gumki (genitive).

b) with a verb in the negative

nie mam zastrzeżeń (genitive)
Hania nie napisala wypracowania (genitive)

c) with verbs of negative meaning such as *przeczyć*, *zakazywać*, *zabraniać*, *zapominać*, *chybiać*, *unikać*, *potrzebować* etc.

zakazalem uczniom palenia (genitive)
Piotr zapomnial pieniędzy (genitive)

d) with impersonal verbs such as *przybywać*, *ubywać*, *brakować*, *wystarczyć*.

ludzi (genitive) *na świecie przybywa*

e) with verbs denoting feelings e.g.: *żalować*, *nienawidzić*, *bać się*.

boję się niedźwiedzi (genitive)

f) with perfective verbs beginning with prefixes *do-* and *na-* as in *najeść się*, *nasypać*, *doczekać się*.

najadlem się strachu (genitive)

g) with some other verbs: *chcieć*, *pragnąć*, *żądać*, *bronić*, *chronić*, *pilnować*, *strzec*, etc.

bronimy ojczyzny (genitive)
żądamy praw (genitive)

The direct object in the instrumental appears with such verbs as *rządzić*, *kierować*, *wladać*, *dowodzić*, *powodować*, *pogardzać*, *lekceważyć*, *poniewierać*, *ruszać*, *trząść*, *obracać* and the like (Doroszewski 1964 : 195).

rządzę moim królestwem (instrumental)
chłopiec *rusza* nogą (instrumental).

Such intricacies as shown above are absent from English where noun objects have only one case. However, the English direct object may enter constructions that do not seem to have an exact counterpart in Polish.

The direct object in an English sentence *she smiled her joy* will hardly ever appear as one in Polish. *She smiled her joy* is tantamount to *she expressed her joy by smiling*. The English verb here assumes the meaning of "expressing by ...-ing" (Jespersen 1965 : 234) as for example:

> Mary *laughed* her thanks
> he *beamed* enormous satisfaction
> I *breathed* my astonishment

In Polish the presence of the direct object in such constructions will depend on the verb in the Polish rendering: *she sang her joy* can be rendered as *wyśpiewała swą radość* but *she laughed her joy* cannot be translated as *wyśmiała swą radość* (since it would mean *she laughed at her joy*). A separate study covering the types, possibly a list, of verbs that admit the direct object in such a construction as well as other ways of rendering the construction into Polish would be useful for learners of English and Polish.

Sometimes the object repeats the meaning, often the form, of the verb it complements e.g. *he lived a double life*. This is termed 'cognate object' and can be found in Polish and in English but the two languages differ in this respect. All cognate objects in English belong to the direct object and complement transitive verbs. A number of corresponding verbs in Polish, though, are intransitive and either incapable of entering the cognate-object construction e.g. the verb in *to fight a fight* cannot be rendered into Polish with the intransitive verb *walczyć* (to fight) but another verb must be used, thereby reducing the noun in the Polish rendering to the status of an ordinary direct object: *to fight a fight* will be *toczyć walkę* (the cognation being absent); or if an intransitive verb in Polish appears with a cognate form, the latter is treated as an adverbial of manner e.g. *umrzeć gwałtowną śmiercią* (to die a violent death), *żyć podwójnym życiem*. Certainly, some transitive verbs in Polish admit cognate objects which are then regarded as direct objects e.g.: *tańczyć jakiś taniec* (to dance a dance), *pisać pismo* (to write a writ) (Heinz 1961 : 40 - - 41).

A direct-object construction that is lacking in Polish is represented by a combination of *to have*+a direct object as in *to have a smoke*, *to have a drink*, *to have a swim* etc. The combination denotes a single performance of the action expressed by the noun (Scheurweghs 1961 : 13; Zandvoort 1962 : 201). The construction will be rendered into Polish by a perfective verb, *to have a ride* — przejechać się, *to have a smoke* — zapalić.

In certain sentences such as *to ask John a question* it is necessary to admit a construction with two direct objects on the grounds that either of the objects that complement a given verb can be considered a direct object when it occurs alone with the same verb (Jespersen 1965 : 295 - 6).

strike *a boy* (dir. obj.)**a heavy blow* (dir. obj.)
strike *a boy* (dir. obj.)
strike *a heavy blow* (dir. obj.)
ask *John* (dir. obj.) *a question* (dir. obj.)
ask *John* (dir. obj.)
ask *a question* (dir. obj.)

*see index of abbreviations

In Polish, pairs like *to ask John* and *ask a question* cannot always be rendered with the same verb. *To ask John* is *pytać Janka* but *to ask a question* will be *zadać pytanie*. *To ask John a question* must be translated as zadać Jankowi pytanie, which will be looked upon a mere sequence of an indirect (*Jankowi* — dat.) and a direct object (*pytanie* — acc.) because Polish nouns in the dative are not considered direct objects. The form *Jankowi* may only function as an indirect object as will be seen below.

It might be of interest to find to what extent the interference of English operates here, that is, whether the English learner of Polish will tend to produce Polish sentences like **Pytać pytanie* or **Pytać Janka pytanie* as the renderings of English sentences of the type *to ask a question* or *to ask John a question*.

INDIRECT OBJECT. The category of indirect object is present in the structures of Polish and English. However, there is a significant difference between the two languages. For one thing, only two objects are usually distinguished in Polish, the direct object and the indirect object (Szober 1969 : 310; Doroszewski 1964 : 193 and Wierzbowski 1962 : 121). The latter cannot be made the subject of a passive sentence, though it may assume the same cases as the direct object. This does not lead to confusion because when the indirect object appears in one of the direct-object cases, it complements an intransitive verb which cannot take a direct object or it is accompanied by a preposition, of which the direct object is incapable. For that matter, the indirect object in Polish can assume all cases except the nominative and be accompanied by prepositions.

The indirect object in English appears only in company with the direct object which it always precedes (Jespersen 1965 : 287; Kufner 1969 : 43 and see Scheurweghs 1961 : 16; Francis 1958 : 351 and Reszkiewicz 1966 : 33). In this case the English indirect noun object corresponds to the Polish indirect noun object in the dative e.g.:

1. he sent *the boy* (indir. obj.) *a book* (dir. obj.)
   posłał *chłopcu* (dative, indir. obj.) *książkę* (dir. obj.)
2. the committee gave *the writer* (indir. obj.) *a reward* (dir. obj.)
   komitet dał *nagrodę* (dir. obj.) *pisarzowi* (dative, indir. obj.)

Example 2 shows that the dative indirect object in Polish does not need to precede the direct object. Unless the learner of Polish realizes that the case determines the function of the noun and masters the dative-case endings, he may face some difficulties in determining which object stands for the indirect object as the interference of his native language will prompt him to apply the positional criterion.

The Polish learner of English may also be affected by the interference of his own language. He may be prone to disregard either the rigidity of the indirect — direct object sequence in English or fail to use the to-phrase for the indirect object, which is obligatory after some English verbs (Grzebieniowski 1964 : 53; Scheurweghs 1961 : 17).

The Polish indirect object in the dative does not serve only as a rendering of the indirect object in English but also appears in the possessive function (Klemensiewicz 1963 : 42 - 3). Sentences such as *koledze* (dat.) *umarł ojciec* or *wziąłem bratu* (dat.) *z rąk rewolwer* can just as well have the form *umarł ojciec kolegi* (gen.) (my friend's father died) and *wziąłem z rąk brata* (gen.) *rewolwer* (I took a gun from my brother's hands). Nouns in the dative in such sentences can be rendered into English only by means of the Saxon Genitive or of-adjunct.

Some Polish verbs that indicate the physical state or condition not determined by the will of the speaker also require the indirect object in the dative, for example: *rodzicom* (dat.) *brakuje pieniędzy* (my parents lack money), *dzieciom chce się spać* (dat.) (children want to sleep). As such construction is lacking in English, English learners of Polish may find it difficult to master.

A difference between Polish and English that will strike learners of either language is that the indirect object in English can be converted into the subject of a sentence in the passive. This property is absent from Polish.

1a. *the best student* has been granted *a reward*
subject retained dir. obj.

2a. *a soldier* was given *a slave-girl*
subject retained dir. obj.

This can be rendered into Polish only with the retension of the indirect object in the dative:

1b. *najlepszemu studentowi* została przyznana *nagroda*
dat., indir. obj. subject

1c. *najlepszemu studentowi* < przyznano / przyznali *nagrodę*
dat., indir. obj. — acc., dir. obj.

2b. *żołnierzowi* została dana *niewolnica*
dat., indir. obj. subject

2c. *żołnierzowi* < dano / dali *niewolnicę*
dat., indir. obj. — acc., dir. obj.

It should be noted, though, that sentences 1b and 2b may equally be the renderings of English sentences ***a reward has been granted to the best student*** and ***a slave-girl was given to a soldier***. The direct object in Polish can be retained if a verb is used in the active voice: 1c. ***przyznali*** or ***przyznano***, 2c. ***dali*** or ***dano***, the indirect objects in the dative being kept as well because the grammatical subject is either contained in the verbal form (***dali***, ***przyznali***) or absent altogether if the impersonal form of a given verb is used (***dano***, ***przyznano***). If the English learner of Polish attempted to transfer into his target language the property of the English indirect object whereby it can appear as the subject in the passive, the sentences he would produce e.g. ****żołnierz został dany niewolnicę*** or ***najlepszy student został przyznany nagrodę*** would be ungrammatical.

As has been stated earlier, the indirect noun object in Polish can also assume cases other than the dative and be accompanied by prepositions. The cases are determined by prepositions which in turn are required by verbs. Thus the Polish indirect object partially falls outside the domain of the indirect object in English and corresponds either to the English prepositional object or to the prepositional phrase.

PREPOSITIONAL OBJECT. The prepositional object can be spoken of when a verb followed by a preposition and a noun is equivalent to a single transitive verb with its direct object. The prepositional object is then treated as a kind of direct object (Thomas 1967 : 125 - 7; Scheurweghs 1961 : 18 - 19 and Zandvoort 1962 : 201), capable of being changed into the subject in the passive.

He applied for a licence.
A licence was applied for by him.
We sent for a doctor.
A doctor was sent for by us.
She turned on the light.
The light was turned on by her.

English prepositional objects will correspond to Polish indirect objects with prepositions which determine the case of the object, sometimes to direct objects if the corresponding verb in Polish is a single transitive verb, e.g.:

the lake ***abounds*** in fish — jezioro obfituje w ryby (acc.)
prep. obj. prep.+indir. obj.
they ***approved*** of the idea — zaaprobowali pomysł (acc.)
prep. obj. dir. obj.

Combinations of a preposition with a noun that do not comply with the definition of the prepositional object are regarded as prepositional phrases in English (Thomas 1967 : 127; Scheurweghs 1961 : 14, 19 and Zandvoort 1962 : 204). These include phrases as in ***I came with John*** or ***he was followed*** *by the police*. Corresponding Polish phrases (*przyszedłem z Jankiem, był ścigany przez policję*) are included into the category of indirect object.

OBJECTIVE COMPLEMENT. Certain transitive verbs in Polish and English such as *nazywać, mianować, ogłaszać, uznać, wybrać, zastać*, and *to consider, to feel, to find, to make to appoint, to elect* can be complemented by both a direct object and another object which shares the same structural referent with the direct object. In English the other object is called the objective complement (Zandvoort 1962 : 203; Scheurweghs 1961 : 27) and occupies the position after the direct object (Reszkiewicz 1966 : 37 and Francis 1958 : 353). Nouns that are used as objective complements can appear either without a preposition or may be introduced by *as*.

We *consider* Mr. Brown a good doctor.
They *elected* his brother president.
He *appointed* the teacher secretary.
We *chose* Dick as our leader.

What is represented by the objective complement in English, is regarded in Polish as belonging to the indirect object (Szober 1969 : 310; Doroszewski 1964 : 193) or as a separate object (Klemensiewicz 1963 : 47 where the term 'dopełnienie orzekające' or predicative object is used). M. Pisarkowa contends that the Polish counterpart of the English objective complement should be considered a subtype of what she calls 'określenie predykatywne' or predicative modifier (Pisarkowa 1965 : 21, 26 - 7). Nouns that are considered predicative modifiers assume the instrumental case without a preposition or are introduced by the prepositions *jako, za, na, w* after which they assume the accusative. This can be represented by the following formula (Pisarkowa 1965 : 102 - 3):

predicate+accusative direct object+predicative modifier
predicate=transitive verb
predicative modifier= a) noun in the instrumental
b) jako+noun in the accusative
c) za+noun in the accusative
d) na+noun in the accusative
e) w+noun in the accusative

dyrektor *mianował* Kowalskiego *swoim zastępcą* (instr.)
pred. modifier

na komendanta (prep.+acc.) *wybraliśmy* Janka
pred. modifier

cenię Cézanne'a *jako artystę* (prep.+acc.)
pred. modifier

koledzy *uważali* Piotra *za maniaka* (prep.+acc.)
pred. modifier

The predicative modifier should not present any difficulties to learners of Polish. Once they have mastered the cases assumed by nouns in this construction and the prepositions introducing the nouns, they will recognize a predicative modifier, no matter what its position in a sentence may be, as seen in the above examples.

* * *

The present discussion, which was meant to signal rather than exhaust some problems pertaining to noun objects in Polish and in English, has shown that there is no one-to-one correspondence between the languages under consideration with respect to the noun object, which has been summed up in the figure below.

Polish	pred. modifier	direct object		indirect object	
English	pred. modifier	direct object	prep. object	indirect object	prepositional phrase

INDEX OF ABBREVIATIONS

acc. = accusative; dat. =dative; dir.=direct
gen.=genitive; indir.=indirect; instr.=instrumental
obj.=object; pred.=predicative;
prep.==preposition, prepositional.

REFERENCES

Doroszewski, W; Wieczorkiewicz, B. 1964. *Gramatyka opisowa języka polskiego z ćwiczeniami. II: fleksja — składnia*. Warszawa: PZWS.

Francis, N. W. 1958. *The structure of American English*. New York: The Ronald Press Company.

Grzebieniowski, T. 1964. *Morfologia i składnia języka angielskiego*. Warszawa: PWN.

Heinz, A. 1961. "O tzw. bierniku wewnętrznym (figura etymologica)". *Biuletyn polskiego towarzystwa językoznawczego* 20. 35 - 50.

Jespersen, O. 1965. *A modern English grammar on historical principles. III: syntax*. London: George Allen and Unwin Ltd.

Klemensiewicz, Z. 1963. *Zarys składni polskiej*. Warszawa: PWN.

Kufner, H. L. 1969. *The grammatical structures of English and German*. Chicago: University of Chicago Press.

Pisarkowa, K. 1965. *Predykatywność określeń w polskim zdaniu*. Warszawa: PAN.

Reszkiewicz, A. 1966. *Internal structure of clauses in English. An introduction to sentence pattern analysis*. Warszawa: PWN.

Scheurweghs, G. 1961. *Present-day English syntax*. London: Longmans.

Szober, S. 1969. *Gramatyka języka polskiego*. Warszawa: PWN.

Thomas, O. 1967. *Transformational grammar and the teacher of English*. New York: Holt, Rinehart and Winston.

Wierzbowski, L. 1962. *Gramatyka języka polskiego dla klas VIII - IX*. Warszawa: PZWS.

Zandvoort, R. W. 1962. *A handbook of English grammar*. London: Longmans.

ADJECTIVES IN NOMINAL PHRASES — AN ENGLISH-POLISH CONTRASTIVE STUDY

BARBARA FEDOROWICZ-BACZ

The Jagellonian University of Cracow

1.1. The aim of this paper is to offer a highly tentative discussion of some problems involved in the contrastive English-Polish analysis of adjectives in NP's and to suggest some possible solutions, as well as mapping out areas for further investigation.

1.1.1. In order to produce a complete contrastive description that would firstly, account for and convey some insights into the nature of differences and similarities between the two languages in the area investigated, and secondly, prove pedagogically helpful, adjectives in nominal phrases in English and Polish should be considered in the light of their (a) syntactic derivation, (b) morphological structure, and (c) semantic load, in both languages.

1.1.2. In view of the ultimate practical goal of this study, those aspects of the phenomenon investigated whose contrastive description may be of some pedagogical value should be discussed first. Consequently, instances of *contrast* observed, e.g., in the position and order of adjectives in equivalent English and Polish NP's should be investigated, since the probability of making a language error in this area is comparatively high due to the operation of the native language interference, the native language being Polish if the goal language is English, and vice versa. The question of morphological inflectional paradigms of adjectives in English and Polish NP's may temporarily be disregarded, since this is an instance of a *difference* between the two languages that has no essential pedagogical bearing. (For the distinction between *contrast* and *difference* introduced for the purpose of practical application in the contrastive studies, see Rivers 1970 : 8).

1.2. The problem of the most effective method to be adopted for the contrastive description of adjectives in NP's in English and Polish is of fundamental importance. To my knowledge, most of the English-Polish contrastive analyses so far completed have been based on TG grammar (consider Marton 1968; Marton 1970; the papers by Zabrocki, Lipińska, Morel presented at the Second Conference of Polish-English Contrastive Studies at Karpacz, December 1971), and the general notions of *equivalence* (Catford 1965 : 28; Krzeszowski 1967 : 33 - 39) and *congruence* (Krzeszowski 1967) have been defined for the purposes of the transformational contrastive studies of English and Polish (Marton 1968 : 53 - 62). At the present stage of investigation, however, I am in no position to state that the TG approach will ensure the best method of dealing with all aspects of Adjectives in NP's in English and Polish. It will be adopted, however, in the sample analyses of adjective syntactic derivation to be presented in this paper, and some working T-rules generating adjectives in NP's in English and Polish will be postulated. It is hoped that a comparison of corresponding strings, generated by corresponding transformations in the two languages, will make it possible to establish if, and at which point of their derivational histories, two equivalent Adj-N structures in English and Polish can be described as congruent. The results of such a comparison should prove pedagogically useful.

1.3. The subject matter of this study is English and Polish nominal phrases containing adjectives. It is necessary to establish some formal criteria by which the language data for the contrastive analyses to be carried out here can be identified in both languages.

1.3.1. Nominal phrases in English are sentence constituents that can be recognized in the surface structure by the application of a series of NP identifying tests in the form of (a) cleft sentence transformation, (b) passive transformation, (c) interrogative transformation (Jacobs and Rosenbaum 1968 : 38 - 40). It is possible to devise a series of similar tests to identify NP's in Polish surface structures, but this question will not be taken up in the present paper. By a NP in Polish I shall understand the nominal group known under the name of "syntaktyczna grupa nominalna" in Polish linguistic literature. (For the definition of "grupa syntaktyczna" see Kuryłowicz 1948 and Misz 1963 in Lewicki 1971; Klemensiewicz uses the term "skupienie" in this sense).

1.3.2. NP's with adjective modifier(s) should be clearly distinguished from other nominal complexes, especially from nominal compounds, since these two nominal groups are most likely to be confused.

1.3.2.1. In English the main criterion for the differentiation between NP's with adjective modifier and nominal compounds is the stress superfix. Namely, the {´+\`} stress superfix characterizes English nominal compounds, whereas the {ˆ+´} stress superfix is typical of surface structure NP's with an adjective modifier (e.g. a *´blackbìrd*; is a nominal compound as opposed to a *b̂lack ´bird* — a nominal phrase). This traditional distinction has been adopted by Lees in his classic work on English nominalizations (1960), though the author observes that the criterion is not absolute and should be modified as far as English nominal compounds are concerned (Lees 1960 : 180 - 182). NP's with adjective modifier, however, "result phonetically in only the $\{\hat{}+'\}$ stress superfix" (Lees 1960 : 181), so this phonetic reflex of the syntactic status can safely be considered a characteristic surface structure feature of the English adjectives in NP's examined in this paper. Other typical features of English adjectives in NP's as different from English nominal compounds (and nominal complexes of the form X-X) may be enumerated as follows (see Lees 1960 : 180):

(a) Adjectives in NP's can be separated from their head nouns by an intervening element X (which may be another attributive adjective) whereas the elements of nominal compounds cannot be so separated, e.g. *a blue woollen jacket* — Adj-X-N is possible but **a blue drunken jacket* of the nominal compound a *bluejacket* is ungrammatical and by no means does it carry the meaning of *a drunken bluejacket* — X-Nom. Comp.

(b) Attributive adjectives can be preceded by intensifiers but nominal compounds cannot, e.g. *a very black board* — Adj-N, is grammatical but **a very blackboard* — Nom. Comp., is unacceptable.

(c) Attributive adjectives in English NP's may be geminated whereas gemination is inconceivable in the case of nominal compounds, e.g. *a red, red skin* — Adj-Adj-N, is possible but **a ŕedrěds̀kin* — Nom. Comp., is ungrammatical.

The feature of attributive adjectives specified in (b) has been distinguished by the structural school (see e.g. Francis 1958 : 268); feature (c) has been pointed out by Chomsky (1957 : 19) and is listed in Lees together with features (a) and (b) (Lees 1960 : 180).

It should be remembered that the above list of features of English modifying adjectives is treated as a working and very general solution which will have to be modified and further specified in the course of closer investigation. It can be observed that many lexical words in English generally considered adjectives do not comply with all items of this characterization, e.g. such recognized adjectives as *wooden* in NP *a wooden leg* or *left* in NP *my left hand* do not admit of intensification (feature b) and gemination (feature c), and the validity of these two features for the adjective identifying characteristics may be questioned.

1.3.2.2. In Polish, a classification of nominal complexes into "adjectivo-nominal compounds" (corresponding to English nominal compounds) and "NP's consisting of a head noun and adjective modifier" has been introduced by Marton (1970 : 62) on syntactic grounds[1]. The distinction has been established on the basis of the following criteria: (a) word-order — "adjectival modifiers usually take a prenominal position whereas in adjectivo-nominal compounds they are post-nominally placed" (Marton 1970 : 62), e.g. *brunatny niedźwiedź* is Adj-N as opposed to *niedźwiedź brunatny* — Adj.-Nom. Compound, (b) possibility of modification by an adverb or intensifier — "while most adjectives functioning as modifiers in NP's may be modified by intensifiers or adverbs, none of the adjectives within the compounds can be so modified" (Marton 1970 : 62), e.g. *bardzo młoda dziewczyna* — Adj.-N, is grammatical, but **statek bardzo parowy* — a modified Adj.-Nom. Compound, is ungrammatical. Marton has also observed that (c) adjectives in nominal compounds cannot be separated from their head nouns by an intervening element whereas modifying adjectives can, e.g. the NP *komiczny aktor* will be classified as Adj-N, since *bardzo komiczny aktor* and *ten komiczny podstarzały aktor* are grammatical, but the nominal complex *aktor komediowy* will make up an adjectivo-nominal compound, since the syntactic groups **aktor bardzo komediowy* and **aktor dobry komediowy* are ungrammatical. It seems to me, as a native speaker of Polish, that one more feature of Polish adjectival modifiers may be added to those outlined by Marton, namely (d) their potential ability to be geminated, e.g. an Adj-N phrase *czarny, czarny las* occurs and is grammatical in stylistically marked Polish (consider the line from a popular tale for children: "*A w tym czarnym, czarnym lesie stał taki czarny, czarny dom*" — "***And in this black, black forest there stood such a black, black house***"), whereas the unit **prąd elektryczny, elektryczny* is unacceptable.

---

[1] The term "adjectivo-nominal compound", introduced by Marton, does not strictly correspond to the Polish term "złożenie" understood in its traditional sense and NP's of

The distinctions given above will be adopted in the present paper as a starting point for further study.

1.3.3. A tentative juxtaposition, however crude and informal, of the characteristic features of attributive adjectives in the surface structure NP's in English and Polish that have been established here in opposition to English nominal compounds and Polish adjectivo-nominal compounds respectively, may prove useful in collecting the data for further investigation. Consider,

---

the type *niedźwiedź brunatny* should not be treated as subtypes of Polish "złożenie". Though the term "compound" may be found terminologically confusing I have adopted it in this paper after Marton since Polish linguistic nomenclature does not have, to my knowledge, a separate term for the type of N-Adj combination considered here. Combination N-Adj is not a typical compound (złożenie) since its elements are independent morphemic words but in Polish the elements of the combination N-Adj are definitely more connected with each other than the same elements in the combination Adj-N (zestawienie). When considered in opposition to typical Adj-N phrases, the term "compound" for NP's of the type N-Adj seems justified. Terminological difficulties connected with rendering the English term "compound" in Polish have been pointed out and described by Grzebieniowski (1962 : 164 n.3)

ENGLISH

Adj-N	Nom. Compound	
+/ˆ+′//	+/′+`/	a b̂lack b́ird : a b́lack b́ird
+/very/ quite_ N/	–/very/ quite_ /	a very black board : *a very blackboard
+/_X N/	–/ X /	a blue woollen jacket : *a blue-drunken-jacket
+/_ _ N/	–/ gemination/	a red, red skin : * a redredskin

POLISH

Adj-N	Adj-Nom. Compound	
+/ _ N/	+/ N _ /	brunatny niedźwiedź : niedźwiedź brunatny
+/ bardzo N/	–/N bardzo–/	bardzo młoda dziewczyna : *statek bardzo parowy
+/ _ X N /	–/ N X /	komiczny podstarzały aktor : *aktor dobry komediowy
+/ _ _ N /	–/ N _ _ /	czarny, czarny las : *prąd elektryczny, elektryczny

Note: X – an intervening element

Even this tentative and informal juxtaposition shows that modifying adjectives in English and Polish NP's are comparable and that they exhibit many similar features. It goes without saying that a thorough contrastive discussion and further specification of these features are needed. In this place it may be noticed that the feature concerning order and position of adjectives in relation to their head nouns in Polish NP's will be the most important point in English-Polish contrastive analysis of NP's containing adjectives. The features of gemination and intensification, which are not present in many generally recognized adjectives in either language, seem to be of a semantic rather than typically syntactic character, and thus, being universal in a sense, they may have little value for the practical purposes in a contrastive analysis. This supposition, however, remains to be tested.

It must be remembered that the features specified here describe mainly the vast class of what may be called "bona fide adjectives". Lees uses the term in reference to English attributive adjectives syntactically derived from "N is Adj" underlying structures (Lees 1960: 180). The characteristic features of these adjectives and their Polish equivalents are practically the same in both languages. The corresponding equivalent Adj-N phrases containing these adjectives are nearly always congruent, having been yielded by identical transformations[2]. Sometimes, however, the distribution of the features listed here is different in Polish and in English. For instance, the adjective *drewniany* in the NP *drewniany most* has prenominal position, accepts, though not readily an intervening element — *ten drewniany, z żelaznymi podporami most* (Marton 1970: 62), but does not admit of an intensifier — *ten bardzo drewniany most* is ungrammatical in neutral Polish. The adjective *wooden* in the equivalent English NP *a wooden bridge* has prenominal position, but it does not admit of an intervening element — *this wooden with iron props bridge* is ungrammatical, and does not accept an intensifier — *this very wooden bridge* is also ungrammatical.

1.4. Attempting to define some basic notions for this contrastive study, a few remarks on the syntactic function of adjectives in English and Polish NP's will now be made. It is assumed that adjectives in English and Polish nominal phrases are modifiers of the main noun of these phrases. Modification is understood here as the relation of the subordination of adjectives (attributes) to the main noun (centre or head) in an endocentric surface NP structure (see Bloomfield 1933: 196 - 200). Kuryłowicz calls this type of relation "attribution" („stosunek atrybutywny w szerokim znaczeniu tego terminu" — Kuryłowicz 1948 in Lewicki 1971: 37) and considers it a typical feature of a syntactic group („grupa") as opposed to a sentence ("zdanie"). He observes that the same as the syntactic function of the element that is being defined in the group ("grupy tj. kompleksy, które w całości zdania pełnią tę samą funkcję syntaktyczną, co ich człon określany" — in Lewicki 1971: 38).

The linguistic material under consideration here shows that the functions of NP's in English and Polish sentences are the same, irrespective of whether a given NP is represented by Det-N or by Det-Adj… Adj-N combination. Consider the basic syntactic functions in the following equivalent examples:

NP as a subject

This big yellow book is mine.	*Ta duża żółta książka* jest moja.
Det — Adj — Adj — N	Det — Adj — Adj — N
This book is mine.	*Ta książka* jest moja.
Det — N	Det — N

NP as an object

I have *this big yellow book.*	Mam *tę dużą żółtą książkę.*
Det — Adj — Adj — N	Det — Adj — Adj — N
I have *this book.*	Mam *tę książkę.*
Det — N	Det — N

---

[2] The term "identical transformations" has been introduced by Marton to denote transformations that operate on two congruent strings in the same way and result in two congruent transforms (Marton 1968 : 59)

Chomsky's [B,A] general representation of function (Chomsky 1965: 71) may be adopted here to describe the function of adjectives NP's in English and Polish, and the following general definition of adjectival modification in nominal phrases is suggested for both languages:
Modifier-of: [Adj, NP]

1.5. The views on the status of Adjective in current linguistic theory are highly controversial (cf. e.g. Chomsky 1965, Lees 1960, C. Smith 1961; Marchand 1966, Winter 1965; Jacobs and Rosenbaum 1968). Chomsky recognizes Adjective as a grammatical category but his TG considers only the simplest cases of adjectives derived from underlying constituent sentences of the "N is Adj" type (Chomsky 1965: 107). Many of the existing TG grammars of English follow his general treatment, accounting for only a small number of the traditional members of the class of adjectives. A complete description of adjectives in NP's in English and Polish should reveal the contrastive details of the nature of Adjective as fully as possible. Consequently, those adjectives that appear in surface NP's but are not or may not be derived from underlying "N is Adj" copulative sentences should be considered in this study. Accordingly, the adjectives to be investigated here will be divided into two main groups from the point of view of their transformational derivation: (a) copulative adjectives, i.e. those adjectives that are transforms of "N is Adj" underlying sentences, (b) non-copulative adjectives, i.e. those adjectives that cannot or may not be syntactically derived from "N is Adj" sentences. An attempt to account for their transformational origin will be made in the pages to come.

2.1. *A technical description.*

In the following section of the paper a working description of TG derivation of attributive adjectives in English and Polish will be attempted. Since the aim of this paper is only to point out the possibilities and indicate directions for further research, the working T-rules postulated here should, by and large, be treated as temporary and highly tentative. Strict formalization is consciously avoided at this stage, so consequently the selectional features and the morphological features of gender and number are not specified, and the category of Determiner is not considered. The notation used is also greatly simplified. Categories are denoted by their conventional abbreviations: Adj — for Adjective, N, N', N'' — for successive, different Nouns, V — for Verb, Pro — for Pronoun. Some additional features of these categories, when necessary, are given in parentheses ( ), e.g. Pro (Indefinite), N (Genitive); otherwise parentheses indicate optional elements. Slants // denote the categories from which the elements that are followed by these slants have been derived, e.g. Adj/N/ means "adjective derived from N". Braces { } indicate choice; the hyphen /—/ is used as a concatenation mark and the arrow———→ means "goes to". The following order of presentation will be observed: first, appropriate T-rules with illustrative examples will be given for English and for Polish respectively (marked ET — for English, and PT — for Polish, and numbered consecutively), then two lists of exemplificatory NP's with their respective equivalents will follow with consecutively numbered examples, and finally some contrastive observations will be made.

2.2. *Copulative adjectives.*

2.2.1. ET1 N— is — Adj——→Adj—N
e.g., *the girl is nice——→a nice girl*
PT1 N— jest — Adj——→Adj—N
e.g., *dziewczyna jest miła——→miła dziewczyna*

Examples:

1. a beautiful girl — piękna dziewczyna
2. an active person — aktywna osoba
3. a significant decision — ważna decyzja
4. a green cucumber — zielony ogórek

5. stary człowiek — an old man
6. żółta kredka — a yellow pencil
7. spokojny wieczór — a quiet evening
8. kolorowy latawiec — a colourful kite

It may be observed that the adjectives resulting from these transformations have the same prenominal position in both languages. Semantically, they can be described as directly denoting qualities of the noun. In the standard Polish grammars attributive adjectives of this type are called "descriptive adjectival modifiers" ("przydawki przymiotne charakteryzujące" or "właściwościowe") (see: Szober 1959: 312, Jodłowski 1957: 321, Klemensiewicz 1969: 56). Their prenominal position has been attested as basic in neutral Polish. (Many examples to this effect are quoted by Jodłowski 1957: 321, and Kurkowska 195[illegible]. 213 - 216). In marked English, copulative attributive adjectives when single, are placed after the head noun very seldom, and the stylistic effect of this device is strongly poetical. Consider, ..." my native shore fades o'er *the waters blue*" (Byron).

2.2.2. The rules suggested above do not account for postnominally placed adjectives that modify indefinite pronouns[3]. The necessity of this modification will be signalled here in the form of tentative amendment rules ET1-A and PT1-A:

---

[3] For a TG description of English post-nominal adjectives of this type see C. Smith (1961).

ET1-A Pro(Indefinite) — is — Adj ——→ Pro(Indefinite) — Adj
e.g., *somebody* is big ——→ *somebody big*

PT1-A Pro(Indefinite — jest — Adj ——→ Pro(Indefinite) - $\begin{Bmatrix}\text{Adj} \\ \text{Adj (G)}\end{Bmatrix}$.

e.g., *ktoś jest duży ——→ ktoś duży*
coś jest duże ——→ coś dużego

Examples:

9. someone bold — ktoś odważny
10. anyone willing — ktokolwiek chętny
11. nothing extraordinary — nic nadzwyczajnego
12. something round — coś okrągłego

13. nikt ważny — nobody important
14. ktoś wysoki — somebody tall
15. coś pięknego — something beautiful
16. cokolwiek ciemnego — anything dark

In the resulting transforms, and inflectional [+Genitive] feature can be observed in Polish adjectives modifying [— human] pronouns in the Nominative and Accusative cases. Consider,

Przydarzyło mi się coś dziwnego — Something strange happened to me.
Pro(Nom.)-Adj (G.)
Zauważyłem coś interesującego — I noticed something interesting.
Pro(Acc.)-Adj (G.)

Some interesting observations on this type of pronoun modification in Polish are to be found in two articles by Pisarkowa (1967: 36, and 1968: 25 - 26). Following Klemensiewicz, Pisarkowa suggests that Polish adjectives in the Genitive case attain a clearly substantival function in the structure discussed (Pisarkowa 1968: 26).

As far as their morphological structure is concerned copulative adjectives are either "base" or "derived" and at the present moment it is difficult to state which type prevails either in English or in Polish. (For the distinction between "base" and "derived" adjectives see Francis 1958: 270 ff. for English, and Szober 1959: 128 ff. for Polish). A contrastive morphological study of adjective derivation in both languages is a separate subject that might illuminate many points in the discussion of transformational derivation of attributive adjectives.

2.3. *Non-copulative adjectives.*

Of the group of non-copulative adjectives, derived adjectives will be discussed first. Describing English word-formation Marchand introduces the term "transpositional" (i.e. syntactic) adjective (1960: 229), which he further specifies in a later article (Marchand 1966), as denoting those modifying adjectives in NP's which are mere renderings of grammatical relations transposed from their underlying sentences. Marchand views Adj-N phrases as "morphologic combinations which go back to ultimate kernel sentences". In his opinion "a morphologic syntagma is nothing but an explicit syntagma — the sentence" (1966: 133). In Polish, a similar approach is advocated by Doroszewski who put forward the conception of syntactic interpretation of lexicology in Polish (his „składniowa interpretacja słowotwórstwa") (Doroszewski 1952: 282; for some interpretations of Polish derived adjectives see Bartnicka 1961: 212 - 219). In the present discussion the term "transpositional adjective" will be used to denote adjectives syntactically derived from other parts of speech in both languages. The most frequent transpositional adjectives in English NP's are: (a) adjectives derived from nouns, (b) adjectives derived from adverbs. These two groups will be discussed in the following sections.

2.3.1. *Transpositional denominal adjectives.*

In NP's that contain denominal non-copulative adjectives, at least four transposed syntactic functions of the nouns from which these adjectives have been derived can be descerned. These functions will be indicated before the transformational rules accounting for the transpositional adjectives in English and the corresponding rules for such adjectives in Polish are given.

2.3.1.1. SUBJECT — OBJECT

$$\text{ET2 } N - V - (\text{preposition} - N' \dashrightarrow \begin{Bmatrix} \text{Adj}/N/-N' \\ \text{Adj}/N'/-N \end{Bmatrix}$$

e.g., *the sun gives energy-→solar energy*
the court deals with crime-→a criminal court

$$\text{PT2 } N - V - N' \dashrightarrow \begin{Bmatrix} N' - \text{Adj}/N/ \\ N - \text{Adj}/N'/ \end{Bmatrix}$$

e.g., *slońce daje energię-→energia sloneczna*

Examples:

17. musical comedy /music accompanies comedy/ — komedia muzyczna
18. atomic number /atom has a number/ — liczba atomowa[4]

---

[4] It may be observed that in combination with the noun *bomb* in NP *atomic bomb* the adjective *atomic* acquires a specific meaning, typical for this Adj-N combination only, and it loses its non-copulative status. (The sentence *this bomb is atomic* is grammatical). The same phenomenon could be observed in other examples of the group of denominal adjectives. In the classification of adjectives into copulative and non-copulative the meaning of their head nouns has to be taken into consideration in each case since it

19. educational officer /an officer deals with education/ — pracownik oświaty /cf. also „oświatowy" in „kulturalno-oświatowy"/

20. szkoła zawodowa /szkoła uczy zawodu/ — a vocational school
21. powieść historyczna /powieść opisuje historię/ — a historical novel[5]
22. orkiestra jazzowa /orkiestra gra jazz/ — a jazz-band

2.3.1.2. SUBJECT — VERB

ET3 N — V—→Adj/N/ N'/V/
e.g., *the sun radiates—→solar radiation*
PT3 N — V—→N'/V/ — Adj/N/
e.g., *słońce promieniuje—→promieniowanie słoneczne*

Examples:

23. Papal appeal /the Pope appeals/ — apel Papieża /papieski/
24. German retreat /the Germans retreat/ — odwrót Niemców
25. human behaviour /human beings behave/ — zachowanie ludzkie
26. łowny kot /kot łowi myszy/ — a mouser /Bartnicka 1969: 213/
27. ryki zwierzęce /zwierzę ryczy/ — animal roars
28. opieka rodzicielska /rodzice opiekują się/ — parental care

2.3.1.3. VERB — PREPOSITION OBJECT

ET4 N — V — Prep — N'—→Adj/N'/ — N"/V/
e.g., *they elect the president—→presidential election*[6]
PT4 N — V — N'—→N"/V/ — Adj/N'/
e.g., *oni wybierają prezydenta—→wybory prezydenckie*

---

usually determines the type of structure underlying the NP considered, consequently determining copulative or non-copulative type of the adjective. In this section of the paper only non-copulative denominal adjectives are considered which in the underlying sentences functioned as nominal objects, subjects and adverbials.

[5] The example *powieść historyczna* may also have another interpretation of "powieść o znaczeniu historycznym; powieść, która stała się /jest historyczna" (a novel important in the history of literature), similar in meaning to *wydarzenie historyczne* (a historical event) or *postać historyczna* (a historical character). In this meaning the adjective *historyczny* can be described as copulative.

[6] It may be interesting to note that in the case of the transpositional denominal adjectives which are non-copulative in this group, the position after the copula in the underlying English sentences can be occupied by their corresponding nouns in the structures with the main verb in the Passive Voice, e.g. in the case of *they elect the president → → presidential election*, the structure **the election was presidential* is ungrammatical but the corresponding noun *president* can occupy the position after the copula in the structure: *it was president, who was being (to be) elected*.

Examples:

29. presidential adviser /he advises the president/ — doradca prezydenta
30. spinal operation /they operate on the spine/ — operacja kręgosłupa
31. manual worker /he works with his hands/ — pracownik fizyczny
32. studia medyczne /oni studiują medycynę/ — medical studies
33. koński pastuch /on pasie konie/ — a herdsman for horses /Bartnicka 1969: 217/
34. reżyser filmowy /on reżyseruje filmy/ — a film director

2.3.1.4. VERB — PREPOSITION — NOUN /adverbial phrase/

ET5 N — V — Prep — N'—→Adj/N'/ — N
e.g., *the bear lives near the Pole—→a polar bear*
PT5 N — V — Prep — N'—→N — Adj/N'/
e.g., *niedźwiedź żyje za kręgiem polarnym—→niedźwiedź polarny*

Examples:

35. an industrial worker /a worker works in industry/ — pracownik przemysłu
36. a Canadian pine /the pine grows in Canada/ — sosna kanadyjska

37. a nocturnal flower /the flower blooms at night/ — kwiat, który zakwita nocą /e.g. królowa nocy/
38. kursy wieczorowe /kursy odbywają się wieczorem/ — evening courses
39. kwiat ogrodowy /kwiat rośnie w ogrodzie/ — a garden flower
40. kawa brazylijska /kawa rośnie w Brazylii/ — Brazilian coffee

2.3.1.5. Even this tentative survey of some English and Polish denominal transpositional adjectives considered from the point of view of their syntactic deriavation makes it posible to observe that adjectives of this group are very closely related to English nominal compounds and Polish adjectivo-nominal compounds respectively. Polish equivalents of the English transforms resulting from the application of ET2 — ET5 are either adjectivo-nominal compounds (example 17, 18, 31, 36) or nominal complexes with the second element in the Genitive case (examples 19, 23, 24, 29, 30, 35). English equivalents of the Polish transforms resulting from the application of PT2 — PT5 are NP's with a modifying denominal adjective (examples 20, 21, 28, 32, 40), regular nouns (example 26), NP's consisting of a head noun and a nominal modifier (examples 22, 34, 38, 39 and possibly 27), NP's of the form N-Prep-N' (example 33), relative clauses (example 37). Lees (1960: 180) has observed that English NP's of the structure N-aff-N' (where N-aff corresponds to our Adj/N/) are similar to English nominal compounds in terms of their transformational derivation. The evidence of this contrastive analysis confirms this observation. In view of what has been concluded it seems advisable to treat English NP's containing denominal transpositional adjectives as a subtype of nominal compounds in the contrastive study of English and Polish NP's.

A relative clause structure in the Polish equivalent in example 37 suggests that the final PT5 transformation does not apply to the Polish string „kwiat zakwita nocą"[7]. In this example the derivation stopped at the relative clause string, an obligatory stage in a detailed derivational history of every example discussed here. More examples of this kind may be found in Polish and English, and a more extensive investigation should show in which of the two languages the transformations of the above series apply more frequently.

2.3.2. *Transpositional adjectives derived from adverbs.*

Jespersen accounted for the transformational character of English adjectives derived from adverbs by describing them as "shifted subjunct adjuncts" (Jespersen MEG, II: 285 ff.). The following rules attempt to account for the presence of transpositional adjectives derived from adverbs in English and Polish NP's:

2.3.2.1. ET6 N — V — Adv—→Adj/Adv/ — N'/V/
e.g., ***he rises early—→an early riser***
PT6 N — V — Adv—→Adj/Adv/ — N'/V/
e.g., ***on wrócił nagle—→ nagły powrót***

Examples:

41. a heavy smoker /he smokes heavily/ — ten, który dużo pali
42. a hard student /he studies hard/ — ten, który dużo się uczy (Fries 1952: 222)
43. a rapid performance /somebody performed it rapidly/ — szybkie wykonanie (Fries 1952: 222)
44. wielki nudziarz /on bardzo nudzi/ — a great bore
45. natychmiastowa pomoc /to pomogło natychmiast/ — immediate help
46. silne bombardowanie /oni silnie bombardują/ — a heavy bombardment

In both languages the head nouns modified by transpositional adjectives derived from adverbs belong to the group of nouns morphologically derived from the class of verbs. NP's resulting from the application of ET6 and PT6 may be divided into those containing [+human] agent nouns (examples 41, 42, 44), and those whose head noun is [— human]. Marchand (1966) observes whereas those of the latter group refer to non-habitual actions. The distinction is also apparent in the morphological structure of the modified nouns in these transforms. The {-er} morpheme is typical of [+ human] nouns. In Polish, rule PT6 seems to result mainly in NP's with [— human] head nouns (examples 45, 46 and the Polish equivalent in 43). In examples 41 and 42 Polish equivalents of English NP's with [+ human] head nouns are relative clauses which suggests that rule PT6 does not apply to them. English equivalents of Polish transforms of PT6 that would not be transforms of ET6 are very difficult to find and it seems that in respect to transformations ET6 and PT6 Polish might prove a "deeper" language, but of course much more linguistic material has to be considered before this assumption is propounded.

---

[7] The term "kwiat nocny" though theoretically possible, is not used in the botanical vocabulary of Polish, the exact name of the flower (e.g. królowa nocy) being used instead.

It is interesting to note that in some cases single "suppletive" nouns may be used in Polish to describe [+ human] agent nouns in a derogatory manner. Consider such pejorative expressions as "kujon" or "pracuś" which may be interpreted as stylistically marked transforms of "somebody studies hard" and "somebody works continually". Jodłowski (1964) discusses similar instances of nominalized adjectives in Polish. Consider e.g. his example *pospieszny* (a fast train) which may be interpreted as derived from *pociąg jedzie szybko* (the train runs fast).

2.3.2.2. A group of transpositional adjectives derived from adverbs of degree will only be signalled here by way of some representative contrastive examples. Consider,

47. absolute necessity — absolutna konieczność
48. perfect regularity — doskonała regularność
49. utter darkness — zupełna ciemność

50. kompletna ruina — utter ruin
51. doskonała prostota — perfect simplicity
52. ogromna próżność — enormous vanity

NP's listed here are morphologically derived from adjectives as far as their head nouns are concerned. Consider, *regular—→regularity*; *prosty—→prostota*. In English, NP's of this group may be interpreted as transforms of underlying structures of the type: "Something — is — Adv Degree — Adj, e.g. *something is absolutely necessary—→something is /of/ absolute necessity*. In Polish, two interpretations of examples 50 - 52 can be furnished. Consider, in the NP *absolutna ciemność* the head noun *ciemność* may have been derived from: (a) the adverb *ciemno* (Jest absolutnie ciemno), or (b) the adjective *ciemne* (coś jest absolutnie ciemne). It should be remarked that the adjectives of these examples do not properly belong to the non-copulative group discussed here, since some of them can enter "N is Adj" pattern in both languages. Consider e.g. *his simplicity is perfect* and *jego prostota jest doskonała* (example 51)

2.3.3. In the preceding discussion only some types of non-copulative attributive adjectives in English and Polish NP's have been considered. Some other types, which seem to require a semantically based description, will only be signalled in this place by way of illustrative examples. Consider the following groups which should be accounted for in further investigations:

1. A group of adjectives that form two-element sets in reference to their head noun /the type of: *my left hand — my right hand, lewa ręka — prawa ręka*/.
2. A group of adjectives denoting materials /*a wooden house — drewniany dom*/.
3. Adj-N phrases which can be interpreted as the transforms of noun deletion transformation applied to the strings of the form: Adj-N-N /the type of: *general store ←—general goods store, sekretarz powiatowy ←— ←—sekretarz komitetu powiatowego*/.
4. Adj-N phrases with figurative meaning /e.g. *his bounden duty — jego psi /święty/ obowiązek.*

ADJECTIVE SEQUENCES IN MULTI-ADJECTIVAL NP'S

3.1. In our discussion only NP's with one modifying adjective have so far been considered. The questions of interrelation and order of adjectives in multi-adjectival NP's in English and Polish are of equal if not greater significance in the present study because of their unquestionable importance in the teaching of both languages. Modifying adjectives in English and Polish NP's can occur in sequences, theoretically composed of an unlimited number of elements. In practice, sequences of more than four adjectives in one NP seem unnatural in neutral English or Polish. Adjective sequences occupy the position before or after the noun in both languages. Consider,

53. *an attractive, triangular, green stamp* (Hornby 1962: 174)
— *atrakcyjny, trójkątny, zielony znaczek*
54. *mój pierwszy prawdziwy bal* (Wierzbicka 1970: 129)
— *my first real ball*
55. *the mountains, tall and majestic, rose above the valley* (Pit Corder 1965: 51)
— *góry, wysokie i majestatyczne, wznosiły się nad doliną*
56. *pamiętam twarz mężczyzny, szczupłą, o skośnych oczach* (Pisarkowa 1965: 27) — *I remember the man's face, lean, with slanting eyes.*

It should be remarked at this point that postnominal position of a string of adjectives, especially when they are joined by coordinating conjunctions, is a feature of the literary rather than colloquial style in Polish as well as in English (consider examples 55 and 56).

3.2. Adjectives in sequences may be parallel or successive in their relation to the head noun, a distinction indicated in both spoken and written English and Polish. Consider the following examples:

57. *a nasty, irritable, selfish man* : 58. *a nice little old man*
— *wstrętny, irytujący samolub* : — *miły staruszek* (Strang 1970: 137)

59. *piękny, stary, srebrny lichtarz* : 60. *wspaniałe wielkie czerwone jabłka*
— *a beautiful old silver candlestick*: — *magnificent big red apples* (Wierzbicka 1970: 129)

In examples 57, 59 adjectives are parallel in their relation to the head noun, in examples 58, 60 they are successive. In speech, parallel adjectives are separated from each other by clearly noticeable plus junctures, in writing — by commas.

Typically parallel adjectives all equally define the head noun, and it may be suggested that they have been incorporated into their surface NP's through a series of conjunction transformations. Thus, examples 57 and 59 might be described as derived in the following way:

57. the man is nasty
AND the man is irritable
AND the man is selfish
} ——→the man is nasty and irritable and selfish——→a nasty, irritable, selfish man

59. lichtarz jest piękny
I lichtarz jest stary
I lichtarz jest srebrny
} ——→lichtarz jest piękny i stary i srebrny ——→piękny, stary, srebrny lichtarz

In some cases coordinating conjunctions are retained in the surface structure, which may be treated as an argument in favour of the basic approach to sequences of parallel adjectives in NP's through the conjunction transformation. Consider some sequences with coordinating conjunctions retained:

61. a rainy *and* stormy afternoon — deszczowe, burzowe popołudnie
62. a brilliant *though* lengthy novel — błyskotliwa *choć* przydługa powieść

The problem of the ordering of conjunction transformations remains to be solved in both languages. It seems that the resulting order of parallel modifying adjectives in NP's depends, to a great extent, on extralinguistic factors such as context of situation and the psychological disposition of the speaker. It is less rigid than the order of adjectives successive in their relation to the head noun.

3.3. It can be observed that adjectives successive in their relation to the head noun all belong to different "semantic groups" (from the point of view of meaning adjectives are usually divided into groups denoting age, colour, size, length, shape, quality, etc.). It may be suggested that "successive" adjectives are introduced into NP's through a series od successively applied relative clause transformations. In view of this assumption, examples 58 and 60 could be analysed in the following way:

58. a man is old → a man who is old, who is little, is nice
a man is little → a nice little old man
a man is nice

60. jabłka są czerwone
jabłka są wielkie → jabłka, które są czerwone, które są
jabłka są wspaniałe wielkie, są wspaniałe → wspaniałe wielkie
czerwone jabłka

(This analysis has been suggested to me by Jacobs and Rosenbaum's TG description of relative clause embedding — 1964 : 261)

From the preceding description it follows that the last-introduced adjective element modifies the whole Adj ... Adj-N group introduced before. Consider,

63. a poor sick little girl ← a sick little girl is poor
— biedna, chora dziewczynka
64. a sick poor little girl ← a poor little girl is sick
— chora uboga dziewczynka

3.4. The question of adjective order is considered by the standard English grammar books but is treated as a marginal problem. Some directions to the student are usually given in the form of a general "table of adjective place in sequences" which classifies adjectives into semantic groups (see e.g. Hornby 1962 : 174, Pit Corder 1965 : 49, Strang 1968 : 138), but it is always remarked that the rules given are not inviolable. The problem of adjective order in Polish is not considered by the standard grammars at all and the phenomen on is thought to belong to the province of stylistics. (Some remarks on the order of adjectives in Polish NP's can be found in Kurkowska 1959 : 213, and Wierzbicka 1970 : 129).

In this paper only a few contrastive observations can be made on some aspects of adjective order in English and Polish. It is believed, however, that an English-Polish contrastive study of the phenomenon may ellucidate some of the points connected with the elusive question of adjective order in English and thus the investigation may prove helpful in the task of finding a good method of teaching English adjective order to Polish students. In the following list of equivalent examples a striking regularity can be observed. Consider,

65. a beautiful young lady — piękna panienka
66. a rich old man — bogaty starzec (also: bogaty stary człowiek)

67. a nice French girl — miła Francuzka
68. a naughty little boy — niegrzeczny chłopczyk

In these equivalent structures three-word English phrases of the form Adj-Adj-N are matched by two-word Polish phrases of the form Adj-N. It seems that for certain Polish adjectives our rule PT1 (N — is — Adj →Adj-N) results in a single noun, not an Adj-N phrase. This regularity may be observed to hold for: (a) adjectives denoting age, (b) adjectives denoting nationality when they modify [+human] nouns, (c) adjectives carrying the meaning of a diminutive, e.g. the adjective *little*. The fact that these adjectives can be incorporated into head nouns in Polish throws some light on their close-to-noun position in English. This observation may also facilitate further investigation on the problem of ordering relative transformations accounting for sequences of successive adjectives in English, and to some extent also Polish NP's.

The problem of adjective order is far from being solved, and needs further thorough investigation. The main types of derivation proposed have partially accounted for the semantic difference between *a sick young boy* (*chory młody chłopak*) and *a young sick boy* (*młody chory chłopak* — or *młody chory* i.e. młody pacjent), but they do not explain the contrast observed in the order of modifying adjectives in e.g. the following English-Polish equivalent pairs:

69. good old days — dawne dobre czasy
70. a good old friend — stary dobry przyjaciel

As has been often indicated in this paper, the solutions proposed here should be viewed as no more than suggestions. It is hoped that some of them at least will prove useful for further research.

REFERENCES

Bartnicka-Dąbkowska, B., Jaworski, M., Sinielnikoff, R. 1961. *Gramatyka opisowa języka polskiego z ćwiczeniami*. Ed. by Doroszewski, W. and Wieczorkiewicz, B. Warszawa: PZWS.

Bloomfield, L. 1933. *Language*. London: George Allen and Unwin Ltd.

Catford, J. C. 1965. *A linguistic theory of translation*. London: Oxford University Press.

Chomsky, N. 1957. *Syntactic structures*. The Hague: Mouton.

— 1965. *Aspects of the theory of syntax*. Cambridge, Mass.: M.I.T. Press.

Corder, S. P. 1960. *An intermediate English practice book*. London: Longmans.

Doroszewski, W. 1952. *Podstawy gramatyki polskiej*. Part 1. Warszawa: PWN.

Francis, N. 1958. *The structure of American English*. New York: The Ronald Press Company.

Fries, Ch. C. 1952. *The structure of English*. London: Longmans.

Gaertner, H. 1923. "Szyk przymiotników w języku polskim". *Sprawozdania z posiedzeń PAU*. 28. 2 - 10.

Grzebieniowski, T. 1962. *Słownictwo i słowotwórstwo angielskie*. Warszawa: PWN.

Hornby, A. S. 1962. *A guide to patterns and usage in English*. London: Oxford University Press.

Jacobs, R. A., and Rosenbaum, P. S. 1968. *English transformational grammar*. Waltham, Mass.: M.I.T. Press.

Jespersen, O. 1931. *A modern English grammar on historical principles*. Part II. London: George Allen and Unwin Ltd.

Jodłowski, S. 1957. "Zasady polskiego szyku wyrazów". *Dziesięciolecie WSP w Krakowie 1946 - 1956. Zbiór rozpraw i artykułów*. Kraków. 309 - 329.

— 1964. *Substantywizacja przymiotników w języku polskim*. Wrocław-Warszawa-Kraków: Zakład Narodowy im. Ossolińskich. PAN.

Klemensiewicz, Z. 1969. *Zarys składni polskiej*. 6th ed. Warszawa: PWN.

Krzeszowski, T. 1967. "Fundamental principles of structural contrastive studies". *Glottodidactica* 2. 33 - 39.

Kurkowska, H. and Skorupka, S. 1959. *Stylistyka polska*. Warszawa: PWN.

Kuryłowicz, J. 1948. "Podstawowe struktury języka: grupa i zdanie". In: *Problemy składni polskiej*. Ed. by Lewicki, A. M. 1971. Kraków: PWN. 37 - 35.

Lees, R. B. 1960. *The grammar of English nominalizations*. Bloomington, Ind.: Indiana University.

Marchand, H. 1960. *The Categories and types of present-day English word-formation*. München: Verlag C. H. Beck.

— 1966. "Attributive and predicative derived adjectives". *Anglia* 84. 131 - 149.

Marton, W. 1968. "Equivalence and congruence in transformational contrastive studies". *Studia Anglica Posnaniensia* 1. 53 - 62.

— 1970. "English and Polish nominal compounds". *Studia Anglica Posnaniensia* 2. 59 - 72.

Misz, H., Szupryczyńska, M. 1963. "Nad zagadnieniem deskryptorów dla niewspółrzędnych grup syntaktycznych dzisiejszej polszczyzny pisanej". In: *Problemy składni polskiej*. Ed. by Lewicki, A. M. 1971. Kraków: PWN.

Pisarkowa, K. 1965. *Predykatywność określeń w polskim zdaniu*. Wrocław: Ossolineum.

— 1967. "Zaimek w polskim zdaniu. 1. Obserwacje podmiotu zaimkowego w mowie potocznej". *Język polski* XLVII. 12 - 33.

— 1968. "Zaimek w polskim zdaniu. 2. Obserwacje przydawki zaimkowej". *Język polski* XLVIII. 12 - 33.

Rivers, W. M. 1970. "Contrastive linguistics in textbook and classroom". *English teaching forum*. Vol. VIII. 4. 7 - 11.

Smith, C. S. 1961. "A Class of complex modifiers in English". *Language* 37. 342 - 365.

Strang, B. 1968. *Modern English structure*. London: E. Arnold Publishers Ltd.

Szober, S. 1969. *Gramatyka języka polskiego*. Ed. by Doroszewski, W. Warszawa: PWN.

Wierzbicka, A., and Wierzbicki, P. 1970. *Praktyczna stylistyka*. Warszawa: Wiedza Powszechna.

Winter, W. 1965. "Transforms without kernels?". *Language* 41. 84 - 89.

ENGLISH PARTICIPIAL COMPOUNDS AND THEIR CORRESPONDING FORMS IN POLISH: A TRANSFORMATIONAL CONTRASTIVE STUDY

MARIA GRALA

Adam Mickiewicz University, Poznań

1.0. The present paper is a part of the author's doctoral dissertation devoted to active participles in Polish and English and aims at contrasting English participial compounds with their corresponding forms in Polish. The transformational model selected for the following contrastive analysis is based on the TG framework developed by Polański (1967), as well as methods developed by Lees (1963), and Jacobs and Rosenbaum (1968).

The starting and working hypothesis is that participial compounds in English and their Polish equivalents have the same derivation and that the surface differences are caused by the different application of the shift transformations.

1.1. By a compound is meant a construction consisting of two or more independent words which are understood as one lexical unit. Syntactically the constituents of a compound may be of two kinds: copulative (paratactic relation) and attributive (hypotactic relation). When the modifing word precedes the modified one the compound is called regressive (characteristic of all Indo-European languages). When the modifing word follows the modified one the compound is called progressive. The most important feature of a compound is that the word order is fixed (Gołąb 1970 : 645).

1.2. English participial compounds belong to the attributive, regressive types. In spelling they are joined by a hyphen, and although there is no rule stating with what compounds the hyphen shold be used, it seems it is always used with participial compounds. A present participle forming a compound functions as a head-word to the whole construction (Hathaway 1967 : 267). It may form a compound with different parts of speech, with nouns, adjectives and adverbs being the most numerous (Scheurweghs 1966 : 155). The whole compound functions than as a modifier to a nominal unless it is in apposition-which rarely occurs.

Certain compounds are known both in Polish and English although in English they are far more common. Nominal compounds, for example, are known to both languages (Marton 1970), while participial compounds are a peculiar syntactic property of English.

2.0. Although we can find 1 : 1 equivalence in Polish and English, at least in the case of a participle being modified by an adverb, the position of the Polish adverb is not fixed as it is in English; and such a construction offers no syntactic peculiarity. Nevertheless, it is interesting to compare English participial compounds with their corresponding forms in Polish from the point of view of the shift transformations employed in their derivation.

2.1. Diagram I shows the difference in pattern between English compounds and their nearest equivalents in Polish. As will be observed later the Polish pattern as shown in the diagram is not the only possibility.

The 1 : 1 equivalence appears only in the case of adverbial modifiers though the position of the constituents in Polish equivalents is not fixed, and they do not form compounds. In the discussion that follows only the position of Polish constituents that directly corresponds to English pattern will be discussed.

ENGLISH			POLISH		
1	2	3	1	2	3
adverb	participle	nominal	adverb	participle	nominal
well —	wishing	people	dobrze	życzący	ludzie
long —	lasting	flowers	długo	trzymające się	kwiaty
far —	reaching	influence	daleko	sięgające	wpływy
adjective	participle	nominal	adverb	participle	nominal
good —	tasting	food	dobrze	smakujące	jedzenie
sweet —	smelling	flowers	słodko	pachnące	kwiaty
innocent —	looking	creature	niewinnie	wyglądające	stworzenie
noun	participle	nominal	participle	noun	nominal
honey —	gathering	bees	zbierające	miód	pszczoły
peace —	loving	nations	miłujące	pokój	narody
sky —	brightening	explosions	rozświetlające	niebo	eksplozje

Diagram 1

In the case of English adjectival modifiers, though the Polish pattern remains unchanged, the place of the adjectival modifier to a participle (position 1 in the diagram) is occupied by the corresponding adverbial modifier. Adjectives in Polish cannot modify participles and that is why they are converted into adverbs in our diagram. The patterns with nouns are different in the two languages. In English they may modify participles, and in this function they may occupy position 1. In Polish nouns are participle complements, and in this function they always follow the participle; and none of the constituents of a participial phrase may be moved separately.

3.0. As pointed out by Lees (1963 : 121) it is possible to construct on the basis of compound transformations an indefinitely large number of compounds which do not occur in English. At present, however, attention is focused on the mechanism responsible for creating participial compounds while disregarding the problem of which compounds do and do not occur in English.

3.1. Participial compounds mirror two grammatical relations, viz., verb-object and verb-adverbial. The following phrase structure rules are necessary for the present analysis:

E and P PS 1. $\mathrm{S} \rightarrow \mathrm{NP\ VP}$

E and P PS 2. $\mathrm{VP} \rightarrow \mathrm{Aux\ MV}$

E and P PS 3. $\mathrm{MV} \rightarrow \mathrm{V} \begin{Bmatrix} \text{Nom} \\ \text{Advbl} \end{Bmatrix}$

E and P PS 4. $\text{Advbl} \rightarrow \begin{Bmatrix} \text{Manner} \\ \text{Place} \\ \text{Time} \end{Bmatrix}$

E and P PS 5. $\text{Advbl Manner} \rightarrow \begin{Bmatrix} \text{Adverb} \\ \text{Prep.Phr} \\ \text{Adjective} \end{Bmatrix}$ (only in English)

3.2. When discussing the derivation of English participial compounds and their corresponding Polish constructions it is assumed that the participial transformation has already been applied to relative clauses thereby generating constructions of the following form:

a) E and P NP $\text{Part}_{\text{attr}}$ $\text{NP}_{\text{object}}$
b) E and P NP $\text{Part}_{\text{attr}}$ Advbl
where $\text{Part}_{\text{attr}}$=an active participle in the attributive function
a) bees gathering honey
pszczoły zbierające miód
b) food tasting good
jedzenie smakujące dobrze

The above constructions are generated from restrictive relative clauses. Nonrestrictive relative clauses may also be a source of participial compounds when in apposition, but since appositive compounds are rare and do not represent any syntactic pecularity, they are not included in the present analysis.

In English the compound transformation shifts the participle modifier or complement to the front position (position 1 in the diagram) and the participle to the position immediately following its complement or modifier (position 2), thus yielding

E T1. NP $\text{Part}_{\text{attr}}$ NP′⇒NP′ $\text{Part}_{\text{attr}}$ NP
E T2. NP $\text{Part}_{\text{attr}}$ Advbl⇒Advbl $\text{Part}_{\text{attr}}$ NP

The participial compound transformation introduces a hyphen between the constituents of the compound which is assumed to be a necessary property of the compounds in question.

In Polish the shift rules generating equivalent constructions are as follows:

P T1. NP, $\text{Part}_{\text{attr}}$ NP′⇒$\text{Part}_{\text{attr}}$ NP′, NP
P T2. NP $\text{Part}_{\text{attr}}$ Advbl⇒Advbl $\text{Part}_{\text{attr}}$ NP
P T3. NP $\text{Part}_{\text{attr}}$ Advbl⇒$\text{Part}_{\text{attr}}$ Advbl NP

(There are still more possibilities which, however, being beyond the present discussion are not included in this study).

P T2. looks much the same as E T2., but P T2. exist concomitantly with P T3., and there is an optional choice as to which of the two rules (P T2. or P T3.) will apply. The examples that follow illustrate our analysis. The structures underlying relative clause constructions look as follows:

E 1 bees which are gathering honey...
P 1 pszczoły, które zbierają miód...
E 2 food which is tasting good...
P 2 jedzenie, które smakuje dobrze...
E 3 influence that is reaching far...
P 3 wpływy, które sięgają daleko...

After the participial transformation is applied we have:

E 1_1 bees gathering honey...
P 1_1 pszczoły zbierające miód...
E 2_1 food tasting good...
P 2_1 jedzenie smakujące dobrze...
E 3_1 influence reaching far...
P 3_1 wpływy sięgające daleko...

The shift transformation then generates:

E 1_2 honey — gathering bees...(E T1)
P 1_2 zbierające miód pszczoły...(P T1)
E 2_2 good — tasting food...(E T2)

266A

P 2_2 dobrze smakujące jedzenie...(P T2)
E 3_2 far — reaching influence... (E T3)
P 3_2 daleko sięgające wpływy... (P T2)
P 3_{2a} Sięgające daleko wpływy... (P T3).

REFERENCES

Gołąb, Z., A. Heinz, and K. Polański. 1970. *Słownik terminologii językoznawczej*. Warszawa: PWN.

Hathaway, B. 1967. *A transformational syntax: the grammar of modern American English*. New York: The Ronald Press Company.

Jacobs, R., and P. Rosenbaum. 1968. *English transformational grammar*. Waltham, Mass.: Blaisdell.

Lees, R. 1963. *The grammar of English nominalizations*. Bloomington, Ind.: Indiana University Press.

Marton, W. 1970. "English and Polish nominal compounds: a transformational contrastive study". *Studia Anglica Posnaniensia* 2. 59 - 72.

Polański, K. 1967. *Składnia zdania złożonego w języku górnołużyckim*. Wrocław: Zakład Narodowy im. Ossolińskich. PAN.

Scheurweghs, G. 1957. *Present-day English syntax: a survey of sentence patterns*. London: Longmans.

266B

NEGATED ADVERBIAL PARTICIPLES IN POLISH AND THEIR CORRESPONDING FORMS IN ENGLISH

Maria Grala

Adam Mickiewicz University, Poznań

1.0 The present paper aims at contrasting negated Polish adverbial participles with their corresponding forms in English.

We assume that participles functioning adverbially are, both in Polish and English, derived from either paratactic or hypotactic non-relative constructions. The differences between negated adverbial participles in Polish and the corresponding forms in English seem to be caused by the different transformations that apply in English at the sentence level. We extend the discussion on the derivation of participial and other equivalent constructions in paragraph (3).

In paragraph (2) we discuss eight types of English forms which are found to correspond to Polish negated adverbial participles.

Our analysis is based on Polish material which includes:

a) examples from contemporary Polish fiction (novels, and short stories), translated by professional translators,
b) examples found in the Kościuszko and Stanisławski dictionaries,
c) examples from Polish grammars, e.g. Klemensiewicz's and Szober's grammars,
d) our own examples.

First we divide Polish negated adverbial participles according to the way they are translated into English. Forty-two typical Polish examples denoting various adverbial relations were given to English and American students who study Polish at Poznań University in the advanced course. They were asked to translate the given sentences into English. If they found more than one way of translating these sentences into English, they translated them in several ways, marking the one which they would preferably use in the given context. The students' translations were compared with the original translations. The results obtained confirmed our observations; namely, that English tends to avoid negated participial constructions. Furthermore, the comparison of various translations of the same sentences has enlarged the scope of English forms corresponding to Polish negated adverbial participles.

We trace the differences and similarities between the Polish constructions under discussion and their English corresponding forms according to the methods introduced by Catford (1965), Di Pietro (1968), and James (1969). For our analysis we adopt the TG framework developed by Polański (1967), as well as methods developed by Jacobs and Rosenbaum (1968). In dealing with various ways of denoting negation in English we follow Klima (1964).

2.0 In comparing all occurrences of negated Polish adverbial participles preceded by the negative particle "nie" with their corresponding English forms, we observe that English tends to avoid negated participial constructions preceded by "not".

The following examples illustrate the variety of English forms corresponding to "nie"+adverbial participle in Polish.

(1) Cofnąłem się *nie opuszczając strzelby*

I stepped back
a) not lowering my gun
b) without lowering my gun
c) failing to lower my gun
d) keeping my gun at the level
e) and/but didn't lower my gun

(2) *Nie lubiąc ludzi* nie znajdziesz przyjaciół

Not liking people a)
Without liking people b)
Disliking people c)
If you don't like people d)
you won't find friends

(3) Janek był bardzo zmartwiony *nie zdawszy egzaminu*

John was very upset
a) not having passed the exam
b) at not having passed the exam
c) at failing the exam
d) not to have passed the exam
e) because he didn't pass the exam
f) as he failed the exam
g) to have failed the exam

(4) *Nie mówiąc ani słowa* opuścił pokój

Not saying a word a)
Without saying a word b)
Failing to say a word c) he left the room
Saying no word d)
He didn't say a word and e)

We compile all the English forms rendering Polish negated adverbial participles in eight types, namely:

Type I negative clauses:
- a) paratactic
- b) hypotactic adverbial (extensional) and intensional,

Type II not + present/perfect participle,

Type III negated gerunds:
- a) without + gerund
- b) (at, by) + not + gerund

Type IV negated infinitives,

Type V present participles with inherent negative meaning,

Type VI forms with negative prefixes:
- a) dis- + present participle,
- b) $\text{un-} + \left\{\begin{array}{c}\text{past participle}\\ \text{adjective}\end{array}\right\}$,

Type VII present participles [illegible] (-body, -thing etc.),

Type VIII present participles in the affirmative, with a meaning opposite to the Polish original.

2.1 Type I includes paratactic, as well as hypotactic constructions. English negative paratactic clauses usually correspond to Polish negated adverbial participles denoting attendant circumstances. It seems that their appearance depends on the neutralization between paratactic and hypotactic constructions, e.g.,

(1) *Nie patrząc na nikogo* wybiegła.
She didn't look at anybody, and ran out.
(2) Poszedł spać, *nie przebrawszy się nawet w piżamę.*
He didn't even change into his pyjamas, and went to bed.
(3) Poszedłem w kierunku wyjścia szybko, *nie oglądając się.*
I went quickly toward the exit, *and didn't look back.*

Negated participial and gerundial constructions may be derived from hypotactic constructions, which are unrestricted in English and are frequent equivalents to the Polish forms under discussion, e.g.,

(4) *Nie wydobywszy od niego żadnego wyjaśnienia*, wybrał się do lekarza.(JD)
As he didn't get any explanation from him, he went to see a doctor.
(5) Starał się ją przekonać, *nie prosząc jednak o przebaczenie*.
He tried to convince her, *though he didn't ask her forgiveness*.

2.2 Type II. "not"+present participle is directly equivalent to "nie"+ present adverbial participle. This construction, though avoided in many instances, may always appear in English, unless the whole ing- construction functions as a complement to a verb or predicate adjective, or as a direct object in passive constructions. In these functions it is replaced by a gerund or infinitive. The following examples illustrate Type II equivalents:

(6) Trzasnął słuchawką *nie czekając na słowa pożegnania* ze strony Kiesla. (JD)
He banged down the receiver, *not waiting for Kiesel to bid him good night*.
(7) — Ha, ha, ha! — śmiał się *nie wiedząc*, jak ma potraktować jej odpowiedź. (JD)
"Ha, ha, ha!" he laughed, *not knowing* how to react to her answer.

2.3 Type III (a) is the most frequent among the corresponding English forms. Gerunds in this type are preceded by the preposition "without".

(8) Chciał jak najprędzej ubrać się i wyjść *nie spotgkając Księżaka*. (SD)
He wanted to dress as quickly as possible and leave *without meeting Księżak*.
(9) *Nie mówiąc nic nikomu* przebrała się i poszła na bal do A.S.P. (SD)
She had dressed up and gone to the Academy dance *without telling anybody*.

When the gerundial construction denotes cause or reason the gerund either appears without a preposition, or is preceded by "at", "by" (subtype (b)). The most frequently met verbs and predicate adjectives in this group are: surprise, please, delight, annoy, upset used in a passive sense; where a gerund functions as a direct object; and glad, angry, happy where a gerund functions as a complement.

(10) Byliśmy zdumieni *nie widząc Janka*.
We were surprised *at not seeing John*.
(11) Rozgniewaliśmy Sarę *nie wpuszczając jej do środka*.
We annoyed Sara *by not letting her in*.

2.4 Type IV are negated infinitival constructions often interchangable with the gerundial equivalents in Type III (b), e.g.,

(12) Byliśmy bardzo zmartwieni *nie spotkawszy cię w niedzielę.*
We were very upset *not to meet you on Sunday.*
(13) Prawdę mówiąc, ucieszyłem się *nie otrzymawszy od niej żadnej odpowiedzi.*
As a matter of fact, I was glad *not to hear from her.*

2.5 Type V comprises English active participles with an inherent negative meaning. The most frequent form within this type is "failing to", which has no direct equivalent form in Polish and under certain restrictions conveys the meaning of "not". The remaining forms have their direct equivalents in Polish, namely:

avoiding — unikając
ignoring — unikając, lekceważąc
refusing — odmawiając

Nevertheless, "failing to" and the remaining three forms appear also as equivalents to Polish participles preceded by "nie", provided that the Polish forms convey a similar meaning, or more precisely they act synonymously in the given context. There are, however, certain restrictions on the usage of these forms:
"avoiding" may be equivalent to "nie patrząc", "nie widząc", and "nie chcąc" +infinitive or gerund denoting perception, if it is followed by an action nominal, e.g.,

(14) Siedział przed lustrem *nie patrząc weń.* (SM)
He sat facing the mirror *avoiding his own reflexion.*
(15) Skręcił za róg *nie chcąc spotkać chłopaka.*
He turned the corner *avoiding meeting the boy.*

"ignoring" followed by a complement (for the most part, nominal one in the genitive case) may be equivalent to (jakby) "nie słysząc", "nie widząc", and "nie chcąc"+infinitive denoting perception.

(16) *Jakby nie słysząc jej słów,* zapytał: ... (JD)
As if ignoring her remark he asked: ...
(17) *Nie widząc jej rosnącego gniewu* ciągnął dalej.
Ignoring her growing anger he went on.

"refusing"+infinitive may be equivalent to "nie chcąc", although it conveys a slightly different meaning:

(18) *Nie chcąc iść za nim* udałem chorego.
Refusing to follow him, I pretended to be sick.

It may also correspond to "nie biorąc", "nie przyjmując" which, when put in the same context with "odmawiając", seem to be synonymous with this form, e.g.,

(19) Postępował uczciwie *nie biorąc pieniędzy*.
By *refusing to accept money*, he acted honestly.

As already mentioned, the most frequent form of this type is "failing to" followed by the appropriate verb in the infinitive. Usually "fail to" replaces "not" when the whole negated construction implies that there is no intention involved on the agent nominal. Syntactically, "failing to" functions as an adverbial participle; whereas the English verb equivalent to the Polish participle functions as an infinitival complement to "failing", e.g.,

(20) *Nie znajdując odpowiednich słów* uśmiechnęła się.
Failing to find the right words she smiled.
(21) *Nie zdając sobie sprawy z niebezpieczeństwa* zapalił zapałkę.
Failing to realize the danger, he lit a match.
(22) *Nie rozumiejąc o co chodzi* stał bez ruchu.
Failing to understand what was going on, he stood motionless.

2.6 Type VI comprises (a) present participles with the negative prefix "dis-" and (b) past participles and adjectives with the negative prefix "un-". In subtype (a) we do not discuss English participles with negative prefixes other than "dis-", like "un-" and "ir-" (unwilling, irresponding), as they are not numerous. "un-" and "ir-" seem to be neither productive nor typical with present participles. The negative prefix "dis-", however, is found in many present participles. The most frequent participles of that type are:

disagreeing	for	nie zgadzając się
disallowing	for	nie pozwalając, odrzucając, odmawiając
disapproving	for	nie pochwalając, potępiając, ganiąc
disbelieving	for	nie wierząc, nie dowierzając
disliking	for	nie lubiąc
distrusting	for	nie ufając, nie dowierzając

(23) *Nie zgadzając się na nasze propozycje* postanowili zebrać się jeszcze raz.
Disagreeing with our suggestions they decided to meet again.
(24) *Nikomu nie dowierzając* czuł się samotny i nieszczęśliwy.
Distrusting everybody he felt lonely and miserable.

Past participles and adjectives of the subtype (b) appear whenever the corresponding English verb does not form the present participle, e.g.,

(25) *Nie wzruszywszy się jej sytuacją* odmówił pomocy.
Unmoved by her situation, he refused to help.
(26) *Nie obawiając się niebezpieczeństwa* ruszył w kierunku wyjścia.
Unafraid of the danger he moved towards the exit.

2.7. Whenever Polish has participial constructions with double negation, a common English equivalent is that of Type VII, namely, a participle followed by so-called "special negatives" (Klima's terminology) like "no", "nobody", "nothing", etc., that is, "not" in the form of "no" /no-/ is shifted to a complement, for example,

(27) *Nie patrząc na nikogo* wybiegła.
She rushed out, *looking at nobody.*
(28) Spał *nic nie czując.*
He slept, *feeling nothing.*
(29) *Nie mówiąc ani słowa* opuścił pokój.
He left the room, *saying no word.*

2.8. The last Type, namely Type VIII is represented by converted participial phrases, i.e., in the affirmative, with a meaning opposite to the Polish original, e.g.,

(30) Później szóstka koni od karawanu, *nie czując ciężaru,* co chwila ponosiła. (SM)
Later, the six horses harnessed to the hearse, *feeling the lightness of their load,* kept on running away.
(31) Stali, *nie zwracając na nas uwagi większej, niż zwracają na podróżnych przydrożne slupy.* (SM)
They were standing, *paying as much attention to us as road signs do to passing travellers.*
(32) *Nie chcąc mi zrobić przykrości* dobrała sałatki.
Trying to please me, she helped herself to more salad.

3.0 Negated adverbial participles in both languages are constructions derived transformationally from negative sentences embedded into, (in case of hypotactic constructions) or adjoined to, (in case of paratactic constructions) another sentence. (Polański 1967: 17)

Negation is a very complicated issue in TG. Should it for instance be treated as an element which acts on the whole sentence like some quantifiers or should it be treated as a part of verbal modality? The definite solution to these questions has not yet been worked out. In dealing with participles, essentially verb forms, we find it useful to treat negation as part of the auxiliary. (Polański, 1969: 93)

Negated sentences, as a source of negated participles and some other derived forms have been embedded or conjoined to other sentences according to one of the following rewriting rules responsible for recursiveness of S (Jacobs and Rosenabum 1968: 44 - 50, 192 - 198, 253 - 263).

paratactic constructions

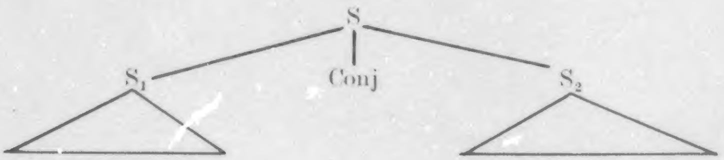
$$S \rightarrow S_1\ S_2$$

hypotactic constructions

$$S \rightarrow NP\ VP$$

$$VP \rightarrow \begin{Bmatrix} V\ NP \\ S\ MV \end{Bmatrix}$$

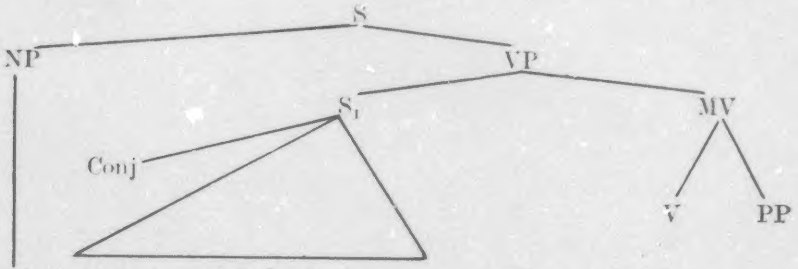
3.1. Using Type I (a) as a starting point we reach the conclusions illustrated below:



P: (ja) poszedłem szybko w kierunku wyjścia — (ja) nie oglądałem się

E: I went quickly towards the exit — (I) didn't look back

Type I (b) may be derived in the following way: (Polański, 1967: 141)



P: (on) (on) nie wydobył od niego żadnego wyjaśnienia poszedł do lekarza

E: he he didn't get any explanation from him went to the doctor

In the above examples we assume that a Conj(unction) has already been inserted, as a part of modality (Polański, 1969: 94 - 95). After the generation of a participle it may be optionally deleted.

In Polish both occurrences of NP, if they are personal pronouns, may be deleted because the ending of the main verb indicates which personal pronoun is missing in the surface structure.

3.2. Type II equivalents, namely "not" + present participle, are derived through a set of participial transformations which apply to negative clauses illustrated in the above paragraph.

In English they account for:
the deletion of NP constituent identical to NP matrix, the deletion of Tense and BE in the progressive forms, the deletion of Tense and the insertion of the participial suffix -ing in so-called "non-activity" verbs:

$\mathrm{Tense} + V_{\mathrm{const}} \Rightarrow \mathrm{Suf}_{\mathrm{ptc}} + V_{\mathrm{inf}}$
where V_{const} = constituent verb
$\mathrm{Suf}_{\mathrm{ptc}}$ = participial suffix
V_{inf} = infinitive, basic form

In English the form of a participle, namely, present or perfect depends on the tense form of the constituent verb, e.g.,

is/are/was/were writing → writing
have/has/had been writing → having written
love/s, ed/ → loving
have/has/had loved → having loved

In Polish they account for:
the deletion of NP constituent identical to NP matrix, the deletion of Tense and the separation of the constituent verb stem, V_s, and the insertion of the participial suffix -ąc:

$\mathrm{Tense} + V_{\mathrm{const}} \Rightarrow \mathrm{Suf}_{\mathrm{ptc}} + V_s$

In Polish, the participial suffix depends on the features of the constituent verb. Polish Present Adverbial Participles are formed from imperfective verbs, while Past Adverbial Participles are formed from perfective verbs.

Thus the aspectual feature ⟨±perfective⟩ must be placed on the verb in order to specify the proper suffix.

When the feature is ⟨− perfective⟩, the suffix is -ąc,
when the feature is ⟨+ perfective⟩, the suffix is -łszy/-wszy.

The next in the set of participial transformations is the affix transformation which accounts for the proper order of elements in Polish, and in English when the constituent verb belongs to the "non — activity" category, yielding:

P: $Suf_{ptc}+V_s \Rightarrow V_s+Suf_{ptc}$
E: $Suf_{ptc}+V_{inf} \Rightarrow V_{inf}+Suf_{ptc}$

The last is an optional shift transformation which may move the generated participial phrase to any position appropriate for an adverbial modifier.

3.3 The surface differences between negated adverbial participles in Polish and Type III (a) constructions in English, namely, those in which we have the preposition "without" + gerund is accounted for by a different set of transformations that may apply in English at the sentence level. It seems that in English at the sentence level, there is a choice between several transformations, among others, the participial and the gerundial transformation. The gerundial transformation generating "without" + gerund may apply to negative adverbial clauses, unless the clause denotes reason.

The gerundial transformation under discussion accounts for: the deletion of NP constituent identical to NP matrix, the deletion of Tense and, in case of the progressive form, the deletion of the participial suffix -ing (ING_1). Next the transformation changes "not" into the inherent negative preposition "without". Whenever "without" is present in the generated construction, the gerundial transformation applies and inserts the gerundial suffix -ing (ING_2) in the place of Tense, yielding:

$$Tense+V_{inf} \Rightarrow ING_2+V_{inf}$$

The affix transformation accounts for the proper order of elements.

3.4 In connection with the generation of the main representative of Type V, namely, "failing to" we suggest that the vast majority of negated verbs, i.e., not + verb is ambiguous, e.g.,

(33) Not making a decision, he reached for the next documents.
may mean:
(a) He didn't intend to make a decision or,
(b) He didn't make a decision, without however, any intention on his part, i.e., he was unable to make a decision, he might have wanted to but he did not succeed.

At this point we would like to offer one of several possible hypotheses to account for the above sort of ambiguity. In order to solve the problem of ambiguity as shown in (33) (a) and (b) we divide English verbs into two groups:

Group I comprises unambiguous verbs, namely those, that are either unspecified as to intention, that is, denoting an action or state that cannot be affected by our will, or specified positively, that is, having the feature ⟨+ intention⟩. The verbs of Group I are not numerous. The most frequent are: grow, have, know, be born, and want which has the feature ⟨+ intention⟩.

Group II contains the remaining verbs, i.e., those which when preceded by "not" may denote intention or lack of intention. Sometimes the surrounding context, in which the negated verb appears, resolves the ambiguity as is the case in the following sentences:

(34) Not speaking English fluently you cannot work here.
(i.e., not knowing the language)
(35) Not cooking dinners she has a lot of spare time.

If the context does not specify the negated verbs as to intention or lack of intention, the construction may be understood in two ways, for example:

(36) Not lowering his rifle he stepped back.
(a) he did not lower his rifle on purpose,
(b) he did not lower his rifle unintentionally, for example, he did not think to lower it.
(37) Not looking at anyone, she ran out.
(a) she did not want to look at anybody,
(b) she did not look at anybody without any intention on her part, not realizing what she was doing.
(38) Not taking part in the conversation, he sat in the corner.
(a) he didn't take part in the conversation because he did not intend to,
(b) he didn't take part in the conversation because he could not follow or did not know the topic.

We find that, in the majority of cases, "fail to" as a participial construction, that is "failing to", may replace "not" followed by a participle derived from verbs of the second group whenever the lack of intention is meant, as is the case in (33) (b), (36) (b), (37) (b), (38) (b).

(33) (b_1) Failing to make a decision, he reached for the next document.
(36) (b_1) Failing to lower his rifle he stepped back.
(37) (b_1) Failing to look at anyone, she ran out.
(38) (b_1) Failing to take part in the conversation, he sat in the corner.

"Fail to" or "failing to" cannot replace "not" irrespective of the fact whether it is followed by verbs or participles of the first group or those of Group II where the context implies intention, e.g.,

* Failing to know the situation he couldn't help his friend.
* Failing to cook dinners she has much spare time.

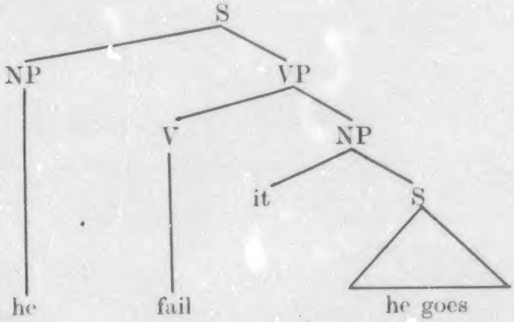
We suggest that the ambiguous constructions of the type illustrated in examples (33), (36), (37), and (38) are derived from two structures, namely, those denoting the meaning of (33) (a), (36) (a), (37) (a), and (38) (a) as well as all the verbs of Group I and those of Group II illustrated in (34) and (35) are derived from negative clauses with "not". Constructions of the type illustrated in (33) (b), (36) (b), (37) (b), and (38) (b) are derived from the following structure:

NP V it S

where V = fail

The following tree illustrates this construction:

He failed to go



An optional transformation may change this construction into one with "not", namely, "he does not go", which, as already stated, is ambiguous, that is, it could also be derived from "he goes" by the insertion of "not" from an auxiliary, yielding "he does not go".

Sometimes, however, we find that a construction with "fail to" corresponds to a "not" construction, where "not" is generated from an auxiliary. In such a case we are probably dealing with a neutralization of the contrast between the semantic value of "not" followed by a verb and "fail to" followed by an infinitive. "Fail to" in this function is frequently met whenever the whole construction implies that the person did not do what he was expected to do and what he should have done, as in the following examples:

(39) He failed to utilize his talents.
(40) He failed to respond.

"Fail to" is also met in this function when followed by "take" in the sense "to avail oneself of something". When the given context points to intention "fail to" followed by "take" in the above sense has only one reading, e.g.,

(41) Failing to take a position in the Reformation controversy he was ostracised by both sides.

When the given context does not specify the construction as to intention, it may be understood in two ways, e.g.:

(42) Failing to take the opportunity he lost his chance.
(a) He didn't want (intend) to take the opportunity.
(b) He didn't manage to take the opportunity.

In the sense of (41) and (42) (a) "failing to" is interchangeable with "refusing to".

Whenever "fail to" is used with the verbs of Group I, the verbs are used in the meanigs different from the basic ones, like in the following sentences:

(43) He failed to know his adversary (where "know" means "get to know").
(44) He failed to know the potential involved in the atom (where "know" means "understand").

Sentences like (43), and (44) seem to support our considerations, as they are used whenever the speaker does not specifically want to imply intention on the part of the agent.

The remaining types of English corresponding forms, namely, Type III (b), IV, VII, and VIII will be the subject of a separate paper.

4.0 The material examined in the previous paragraphs (2 and 3) seems to confirm our observations that the construction "not + participle" in the adverbial function tends to be avoided in English.

A possible explanation for the avoidance of "not + participle" in English is, that typically, "not" is fused with the auxiliary. It receives support from the auxiliary, whereas in the "not+participle" construction, the "not" appears exposed, too prominent, and therefore this construction tends to be avoided.

For instance, "to+not+infinitive", e.g., "to not go" is considered ungrammatical, and yet this construction is used, because "not" fused with the infinitive is less exposed than when preceding the whole infinitival construction, namely, in front of "to". As a common mistake with native speakers, "to+not+ +infinitive" represents how they feel about their language, despite the norms of prescriptive grammar, and may serve to strengthen any hypothesis that the negative particle "not" before a verb tends to be avoided.

List of the quoted authors
JD — Jan Dobraczyński
SD — Stanisław Dygat
SM — Sławomir Mrożek

REFERENCES

Catford, J. 1965. *A linguistic theory of translation*. London : Oxford University Press.

Jacobs, R. and P. Rosenbaum. 1968. *English transformational grammar*. Waltham, Mass.: Blaisdell.

James, C. 1969. "Deeper contrastive study". *IRAL* 7, 83 - 93.

Di Pietro, R. 1968. *Contrastive analysis and the notion of deep and surface grammar*. Washington, D. C.: Georgetown University Press.

Klima, E. 1964. "Negation in English". *The structure of language: readings in the philosophy of language*. Ed. by J. Fodor and J. Katz. 246 - 323. Englewood Cliffs: Prentice-Hall.

Polański, K. 1967. *Składnia zdania złożonego w języku górnołużyckim*. Wrocław : Ossolineum.

Polański, K. 1969. "Sentence modality and verbal modality in generative grammar". *Biuletyn fonograficzny* 10. 91 - 100.

NEGATION IN ENGLISH AND POLISH*

JAN CYGAN

Wrocław University

I. INTRODUCTION

1.1. Definitions of negation are not plentiful in linguistic literature. About the only attempt at defining negation that was found by the present author was by Marouzeau (1951), and is quoted here in the original French

> "*Négation*. Expression propre soit a constanter (négation proprement dite) soit a prétendre (dénégation) que telle chose n'est pas ou n'est pas ce qu'on dit".

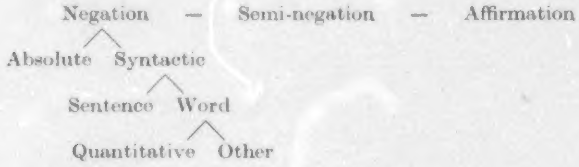
The above statement is not, however, of much help in a formal study. Much more helpful in this respect is the rest of the entry, where various kinds of negation are enumerated. Thus Marouzeau distinguishes *absolute* negation from one related to a statement, which is termed *syntactic*. The latter, in its turn, can bear upon a word (*word* negation) or a sentence (*sentence* negation). This division is a reliable one, since it is based on formal dichotomy. The other division that Marouzeau gives, that into simple negation (containing only the negative idea) vs. compound negation or negative word (negation attached to an idea of time, person, object, etc.) does not appear to be so clear-cut. The dichotomy should rather be continued by saying that within the word negation group a special group of words can be distinguished, often termed *quantitative* negatives (most of which are 'compound' negations). Marouzeau

---

* This work was carried out within the Polish-English Contrastive Analysis Project sponsored by the Ford Foundation and the Center for Applied Linguistics, and co-ordinated by the Institute of English Philology of the Adam Mickiewicz University, Poznań, Poland. Most of the examples were taken from A. A. Milne's *Winnie-the-Pooh* and *The House at Pooh Corner* and their Polish translation by Miss Irena Tuwim.

also mentions *semi-negatives* — words serving to lessen an affirmation, which have to be considered as well, since they display some of the formal features of the negatives.

1.2. Arranged in a systematic manner the different kinds of negation could be represented in the following diagram:



The existent terminology is by no means consistent. Thus corresponding to 'sentence' and 'word' negation, Jespersen (1917) introduced 'nexal' and 'special' negation respectively. 'Grammatical' vs. 'lexical' are another pair of terms covering the same distinction. 'Quantitative' negatives (as distinguished from all the rest which were 'qualitative', both terms introduced by Gebauer and Mourek in 1902), were termed 'words of negative totality' by Palmer (1924). In this paper the term *special* will, for the sake of convenience, be used for that group of lexical negations which are not quantitative negatives and are denoted as 'other' in the diagram above.

1.3. The order of dealing with the different kinds of negation in this paper will be as follows.

(1) Absolute negation,
(2) Sentence negation,
(3) Quantitative negation,
(4) Special lexical negation,
(5) Semi-negatives, and
(6) Implied negation in affirmative form.

Other aspects, such as negative 'attraction', strengthening of negatives, double negation, etc. will be dealt with at the most convenient places within that general scheme. But first the formal exponents (marks) of the category both in English and Polish have to be reviewed.

II. EXPONENTS OF NEGATION

2.1. Exponents (marks, signals) of negation, like those of other grammatical categories, can be found at various levels of linguistic analysis. In English they are the following:

1. Negative words
    (a) simple: *no*, *not*;
    (b) compound: *none*, *nobody*, *nothing*, *nowhere*, *never*, *neither*, *nor*;
2. The negative particle *-n't* (or *-not*, as in *cannot*), always joined to a special finite;
3. Negative affixes
    (a) prefixes: *un-*, *dis-*, *in-*, *a-*, *non-*;
    (b) suffix: *-less*.

Other exponents taken into consideration were the words *hardly* and *scarcely* (semi-negatives) and *nearly* (because of its negative Polish equivalent), as well as the negative preposition *without*. The determinative *any* (and its compounds) which might be termed a secondary exponent of negation, since it signals it only when accompanying another negative element in the sentence, has been automatically included with the negative sentences. The above list is probably incomplete, since such words as e.g. *lest* might also be included.

2.2. Some of the above exponents (*no*, *not*, *neither*, *any*) may be ambiguous if taken at their face (dictionary) value, and it is only at other levels that one can distinguish between various kinds of *no*, *not*, etc.

Thus at the phonological level some *not*'s have a strong stress, and some a weak one. The same is true of *any*. The *any* we are concerned with (the one accompanying a negative word) is always unemphatic and weakly stressed; but there is also a strongly stressed *ány* which is not negative. Cf.

I won't go to ăny café — Nie pójdę do żadnej kawiarni
vs. I won't go to ány café — Nie pójdę do byle jakiej kawiarni.

The phonological level is, in its turn, of some help for the analysis at the grammatical level, where it is already possible to discern most of the exponents, and to classify them according to their function. Thus it is seen, on the one hand, that there is actually no difference in function between *-n't* and the unstressed *nŏt*, the two forms often alternating and always negativing verbs (*verbal negator*). On the other hand, we can distinguish between two kinds of stressed *nót*, one negativing the following word (*lexical negator*), the other replacing a whole negative clause. There are also two kinds of *no*, one functioning as an absolute negation ('prosentence'), the other as a determiner or adverb of quantitative negation.

There are other phenomena to be observed in syntax. A verbal negator (*-n't* or *nŏt*) is a form bound to its place after its special finite (*-n't* having almost become an inflexional element, *nŏt* admitting only of insertion of a pronoun subject, including *there*). A general lexical negator (*nót*) is free to be placed at any point in the sentence in front of the word that is to be negatived. Occasionally inversion takes place after front-positioning of negatives like *never*, etc.

There are also exponents to be found at the lexical (semantic) level (the negative 'import' of a word, etc.).

2.3 In Polish the exponents of negation are:

1. *nie*, often spelt together with the word negatived;
2. *ni-*, found only in compounds, e.g. *nikt*, *nic* (both in their various case forms), *nigdzie*, *nigdy*, and *ani*;
3. *żaden* (in various case forms of its three genders).

The list can be completed by prefixes such as *bez-*, and the preposition *bez*.

At the phonological level one might contrast *nie* having its own stress with *nie* depending for its stress on the immediately following word it qualifies. This latter *nie* will appear now as stressed, now as unstressed, the mechanism of this phenomenon being as follows. Stress in Polish regularly falls on the penultimate syllable of a word, or rather stress-group, so if the word qualified by *nie* happens to be a monosyllable, the stress will of necessity have to be automatically transferred to *nie*, cf.

nie b'yło vs. níe ma

with stresses mechanically superimposed on the penultimate syllable in each group. This system in Polish helps to understand why there is the possibility for the negative particle to be linked together with the following word in spelling: a proclitic word within a stress group has the same status as a syllable has within a word.

The stress-system differences tie up with grammatical distinctions, the absolute negation *níe* being always stressed, while the sentence negation *nie* is proclitic. At the syntactical level it may be observed that a *ni-* word appearing in a sentence is always accompanied by *nie* (verbal negator). Objects of negative sentences appear in the genitive case (instead of the normal accusative), etc.

2.4. A tentative tabulation of the two sets of formal exponents against one another taken at their face value and arranged according to their functions would yield the following scheme.

Function	English	Polish
Absolute negation	nó	níe
Sentence negation	nŏt (-n't)	nie
Quantitative negation	no	żaden
	none	żaden
	no one	nikt
	nobody	nikt
	nothing	nic

Special negation	nowhere	nigdzie
	never	nigdy
	neither	ani
	nor	ani
	nót	nie
	un-	nie-
	in-	nie-
	-less	bez-
	without	bez

The above comparison is by no means absolute. It is only meant to show, at a first approximation, that there is no 1 : 1 correspondence between the exponents of negation in the two languages, the Polish exponents being fewer (in form) than the English. Thus

no and *none* are both rendered by ***żaden***,
nobody ,, *no one* ,, ,, ,, ,, ***nikt***,
neither ,, *nor* ,, ,, ,, ,, ***ani***,
un- ,, *in-* ,, ,, ,, ,, ***nie-***, etc.

Further complications will appear presently.

III. ABSOLUTE NEGATION

3.0. The absolute negation in English is *no* (contrasted with *yes*). This *no*, marked '*no* (1)' by Palmer (1938), together with *yes* constitute a special group of function words in Fries's (1952: 102) classification: they are the two alternative answers to general questions.

3.1. *No* sometimes constitutes the whole of a response utterance (hence the name 'absolute' negative), but mostly only introduces a response utterance. The standard Polish equivalent is *nie*, best seen in citation form as in the following example:

He had been saying "Yes" and "No" in turn
mówił tylko "tak" i "nie".

Genuinely absolute occurrences are not very numerous. Their domain appears to be in situations where the negative answer is hasty, abrupt, or decisive and final, e.g.

Are we at the top? *No.*
Are we going to the top? *No!*

(The second speaker is obviously annoyed by the first speaker's questions.)

3.2. But in most cases *no* serves only to introduce a fuller response. This may be in the form of

(a) a full separate sentence, often expressing a contrast:
Hallo, Piglet! he said. I thought you were out.
No, said Piglet, *it's you who were out.*
Could you stop turning round for a moment?
No, said Eeyore. *I like turning round.*

or (b) a formally negative sentence, extending and supporting the absolute negative:
No, said Pooh. That would *not* be a good plan.

3.3. A typical negative answer in English, however, consists of the absolute negative *no* followed by a negative special finite with its pronoun subject. There being no auxiliaries of that kind in Polish (except for the auxiliary of the imperfective future tense *będę*, etc.) the full (negatived) verb has to be used here:

Do you know what A means, little Piglet?
No, Eeyore, I *don't.*
Nie, Kłapouszku, *nie wiem.*

I can see mine! cried Roo.
No, I *can't*, it's something else.
Nie, *nie widzę*, to co innego.

3.4. In all the above instances *no* was rendered by *nie* or '*nie* plus' in Polish, i.e. by a negative. There are, however, instances where it has to be rendered by an affirmative:

That's no good.
No, said Pooh, I thought it wasn't.
To niedobrze.
Tak — zgodził się Puchatek — i ja tak myślę.

What was Pooh saying? Any good?
No, said Pooh sadly. No good.
Co Puchatek powiedział? Zdaje się, że nic madrego.
Tak, — westchnął Puchatek — nic mądrego.

These result from different systems operating in the two languages. In English the comment or answer addresses itself to the fact, irrespective of the form of the preceding statement or question; in Polish it depends on the form of the question as well, or rather on the relationship between that form and the actual situation. The two systems can be represented as follows.

	Form of Question or Statement	Situation	Answer or Comment	
			English	Polish
(1)	positive	positive	yes	tak
(2)	positive	negative	no	nie
(3)	negative	positive	yes	nie
(4)	negative	negative	no	tak

The disagreement shown above for cases (3) and (4) is important, the more so, that it is not a peculiarity of the Polish-English contrast only. As stated by Catford (in Quirk and Smith 1959: 176): "There are many languages in which affirmation and denial of the 'yes' or 'no' type consists in acceptance or rejection of the form of the *question*, and not, as in English, of the *facts*. It so happens that ... languages, although in other respects very different from each other, *agree* in this point in *disagreeing* with English". Or, more precisely (Catford 1965: 40): "In English, selection of *yes* or *no* in response to a question (or statement) depends on what we may call 'the polarity of the situation': situation positive, answer 'yes'; situation negative, answer 'no' (irrespective of the polarity of the preceding utterance). In many other languages, selection of the appropriate response depends on the polarity-relationship between question (or statement) and situation: *same polarity* — answer *X*; *different polarity* — answer *Y*".

As pointed out by Blackstone (1954: 15), "It is most important to note that *agreement* with negative questions is expressed in English by *no*. Much confusion is caused by failure to observe this rule, and Englishmen living abroad learn by bitter experience to follow a rule of their own: Never use a negative question when addressing a foreigner".

IV. SENTENCE NEGATION

4.1. Negative Sentences.

Traditional grammar textbooks often establish the tripartition of sentences into affirmative, interrogative, and negative. Such a tripartition should be looked upon with criticism, since one can easily find sentences which are equally well classifiable with both interrogative and negative types, the divisions not being mutually exclusive. Upon a closer inspection the tripartition turns out actually to be a combination of two binary oppositions intersecting each other and yielding a total of four (not three) different kinds of sentences. The two contrasts are

(a) Affirmative vs. Interrogative,

(b) Positive vs. Negative,

and the four types of sentences are

1. Affirmative positive (traditional Affirmative),
2. Interrogative positive (traditional Interrogative),
3. Affirmative negative (traditional Negative),
4. Interrogative negative.

The marked members of the oppositions are Interrogative and Negative respectively, wherefrom it follows that type (1) is unmarked and type (4) doubly marked, as observed in the traditional terminology, the term 'interrogative-negative' (or negative-interrogative) being actually used in spite of the tripartite division.

4.2. The negative sentences, which are our concern in this chapter are the marked member of the above opposition (b). The marker is (in writing) ***not*** placed after one of the 24 special finites, or *-n't* written jointly with them. In spoken English the latter exponent is used almost exclusively, the negative *-n't* having in some instances so amalgamated with the special finite as to become inseparable from it except by the eye (trying to subtract the negative element from ***don't***, ***won't***, ***shan't*** or ***can't*** one is left with what sound like 'dough', 'woe', 'Shah' or 'car'! — in RP).

One absolute exception to the rule is the case of *am*: there is not a form like *amn't. According to Jespersen (1917 : 20) it would be 'unpronounceable'. The form *I'm not* is used instead, with the reduction of *am* to *'m*, the weak form of either ***not*** or the special finite being imperative (Palmer 1939 : 124).

The two tendencies are found to compete in the case of *are*, where both ***'re not*** and ***aren't*** can be found, although Palmer (1939 : 261) asserts that the form ***aren't*** seems to be avoided by educated speakers. On the other hand, ***'s not*** is rather isolated. The full paradigm of the Present Negative of the auxiliary verb ***to be*** would then seem to be (Palmer 1939 : 138):

I'm not	we're not
you're not	you're not
he isn't	they're not.

In the Interrogative-negative *Isn't* and *Aren't* are general.

Extreme reduction of the negative ***don't*** is sometimes shown by the spelling ***dunno*** for 'don't know'.

The full (written) forms of both the special finite and ***not*** are found only in the following instances:

(a) purely graphical representation:
PLEZ CNOKE IF AN RNSR IS NOT REQID
(Owl's illuminating notice on his door),

(b) formal style:
My remarks do not, of course, apply to ...

The fact of emphasizing the global negative special finite form as it is, instead of decomposing it into the (positive) special finite plus emphasized negative *not* is important, because it helps to establish, parallel to the opposition

'negative particle — zero'

the opposition

'negative special finite — special finite',

where the special finites aquire the affirmative value of the logical contrary of the negative *not*.

4.3. Special finites are distinguished from all the rest of finites by their functions as syntactical *operators* (Firth 1957 : 13, Cygan 1969). The most striking formal difference, however, is their use joined to the contracted form *-n't*. (Hornby 1954 : 3 even proposed — for beginners — the term "the 24 friends of *not*"). A special position among them is held by the auxiliary ***do***. This, unlike the rest, has no independent meaning, but serves purely as a carrier of the exponents of various grammatical categories normally expressed with the help of special finites. The forms ***don't***, ***doesn't***, and ***didn't*** are pure negatives (cf. Sweet 1898 : 91).

The negative special finites constitute the greatest part of the bulk of the negative exponents in an English text. They are the negatives *par excellence*. This follows from the fact that the category of negation is in a definite and rather special relationship to the category of verb. For the negative accompanying the verb makes the whole utterance negative, whereas a negative standing by any other part of the sentence may not affect the general positive sense of the utterance. By far the most frequent among the negative special finites are the empty negation carriers, since all non-auxiliary finite verbs are made negative with the help of the auxiliary verb *do*.

4.4. From the point of view of their Polish equivalents it is convenient to divide the negative special finites into two groups.

Group 1 would include those special finites that actually function as auxiliaries in conjugation, viz. *do* (carrier of negation), *be* (Continuous and Passive auxiliary), ***have*** (Perfect auxiliary), ***shall*** and ***will*** (when marking pure futurity and in Conditional). To this group should also be added ***can*** when used with verbs of perception (cf. ***I can't see*** being equivalent to ***I don't see***).

Group 2 will include the special finites used as verbs with meanings of their own, thus *be* denoting existence or used as copula, ***have*** denoting possession, and all the modals retaining their modal meanings (*can*, *must*, *need*, etc.).

The negative finites of the first group are rendered in Polish by ***nie*** only (immediately followed by a finite form of the corresponding full verb to be negatived).

The negative finites of the second group are rendered by *nie*+an equivalent of the special finite (in the case of modals followed by the infinitive of the full verb).

Examples of the first group:

Tiggers ***don't*** like honey — ***nie*** lubią
I'm not throwing it — ***nie*** rzucam
I ***haven't*** seen Roo for a long time — ***nie*** widziałem
Perhaps he ***won't*** notice you — ***nie*** zauważy
I ***shouldn't*** be surprised — ***nie*** zdziwiłbym się
Can't you see? — ***nie*** widzisz?

Examples of the second group:

Oh, ***you're not*** Piglet — ***nie jesteś*** Prosiaczek
I ***haven't*** another balloon — ***nie mam*** drugiego balonika
Tiggers ***can't*** climb downwards — ***nie mogą*** złazić
One ***mustn't*** complain — ***nie mogę*** narzekać
I ***needn't*** be face downwards — ***nie muszę*** leżeć...

4.5. Apart from this general scheme, individual special finites of Group 2 call for some more remarks.

Thus with the verb ***to be***, the equivalents are:

(a) ***nie jestem***, etc. (Present), ***nie byłem***, etc. (Past);

(b) ***nie*** alone, in case of omission of the copula in Polish (Present only; the Past form is regularly ***nie byłem***, etc.);

(c) ***there isn't, there aren't*** are rendered by ***nie ma*** (Present only; the Past is regularly ***nie było***.) The subject of the sentence is in the genitive case here (supplementary exponent of negation)

Examples:

it ***isn't*** a sponge — to ***nie jest*** gąbka
but spelling ***isn't*** everything — ***nie*** wszystko
It ***wasn't*** Pooh's fault — ***nie była*** wina
Pooh ***isn't there*** — ***nie ma*** Puchatka
The more he looked inside, the more Piglet ***wasn't there***
— Prosiaczka tam ***nie było***

The standard equivalent of ***haven't*** is ***nie ma***, etc., with the 3rd person Singular identical in form with ***nie ma*** above. The two used to be kept apart in the old system of Polish orthography, where ***nie ma*** ('hasn't') was contrasted with ***nie ma*** ('there isn't'), but that purely graphical differentiation was abolished in the last spelling reform in 1936 (Jodłowski and Taszycki 1936:

37). The new spelling system specified that both cases should be spelt disconnectedly in accordance with a more general rule of spelling ***nie*** disjointly with all verbs (except for the cases where the verb did not exist without the negative particle, e.g. ***nienawidzić*** 'to hate').

The subject of ***nie ma*** 'has not' is in the nominative case. As a transitive verb, however, ***nie ma*** can take an object, and this — like all objects of negative verbs in Polish — is put in the genitive (corresponding to the accusative of the positive forms). An exception to this rule is the form ***nic***, which will be commented on later (5.2.4).

Of the modals, ***can't*** is rendered by ***nie mogę, nie umiem, nie potrafię***, etc., all of these expressing incapacity to do some thing or ignorance how to do it. The impersonal ***you can't*** is rendered by ***nie można***. ***Can't help*** — by (1) ***nie można***, etc. with negative infinitive, or (2) ***muszę*** with positive infinitive.

Mustn't is rendered by ***nie może, nie powinien, nie wolno*** indicating prohibition (opposite of ***may***); ***needn't*** by ***nie muszę*** (opposite of ***must***), expressing absence of obligation or necessity.

4.6. One of the peculiarities of the special finites is that they can function as 'propredicates' (Joos 1964 : 65) or 'code finites' (Firth 1957 : 13), or, as traditional grammar puts it, are used to avoid repetition of verb. There being no device of that kind in Polish, there are two kinds of possible equivalents with negatives:

either (1) the full verb form is repeated with negative
nie preceding,
or (2) the negative ***nie*** alone is used, the verb being 'understood'.

Examples:

(1) but instead of coming back the other way, as expected, he ***hadn't*** —
nie wrócił
I think — began Piglet nervously.
Don't, said Eeyore — ***nie myśl***

(2) sometimes the Place was Pooh's nose and sometimes it ***wasn't***
— a czasem ***nie***
whether you want him or whether you ***don't***
— czy się go potrzebuje czy ***nie***

In some instances ***nie*** alone may be ambiguous, being identical in form with the absolute ***nie*** ('no'). To avoid ambiguity the full verb is added:

Can't you see them? No, said Pooh. —
Czyż ich nie widzisz? Nie, odpowiedział Puchatek, ***nie widzę***.

(For the same reason an absolute ***no*** has sometimes to be replaced by a negatived verb in Polish, since ***nie*** alone would mean 'yes', see above 3.4).

Example:

But, Pooh, cried Piglet, all excited, do you know the way? *No*, said Pooh.
Ależ Puchatku, zawołał Prosiaczek mocno wzburzony, przecież ty nie znasz drogi! *Nie znam*, rzekł Puchatek.

The same problem occurs in the so called short answers to questions in apposition to an absolute negative. In this case, however, only the full repetition of verb is possible in Polish (or entire omission of the apposition). The reason again is the rendering of both the absolute *no* and *-n't* in Polish by *nie*, whereby the retention of *nie* alone after the absolute *nie* would result in an awkward repetition of two stressed *nie*'s side by side.

4.7. Another important peculiarity of the special finites is their use in Disjunctive or Tag Questions. These consist of the statement and the comment in the same utterance. The tags are either negative or positive, depending on whether they are attached to a positive or a negative sentence respectively. In Polish the difference is lost entirely. There are formally two equivalents: the seemingly negative *nieprawda* (*nieprawdaż*) and the positive *prawda*, but they seem to be used quite freely in translation, irrespective of the English tag form. Cf.

Seventeen, isn't it? — nieprawda?
Fourteen, wasn't it? — prawda?
I'm not Roo, am I? — nieprawda?
They didn't catch it, did they? — prawda?

Occasionally other equivalents are found, negative (*czy nie*? *chyba nie*?) or positive (*co*? *tak*?, etc.).

4.8. Sometimes English verbal negation is not rendered in Polish by negativing the verb. Instead of a negative sentence (negative verb) we have the negative element placed next to some other part of the sentence, the result being a positive sentence with only part of it negatived. This phenomenon has been called *negative attraction* (Jespersen) and explained by the power of some words of attracting the negative particle to themselves. The following are typical examples of this kind of substitution of word negation for sentence negation.

But it *isn't* everyone who could do it — ale *nie każdy* to potrafi

but it *isn't* quite a full jar — ale garnek jest *niezupełnie* pełen

Pooh (who *was n't* going to be there) — Puchatek (który miał być *nieobecny*)

You don't often get seven verses in a Hum — *Nieczęsto* bywa siedem zwrotek w mruczance

This *didn't* help Pooh much — *Niewiele* to powiedziało Puchatkowi he *didn't* like the idea of that — to mu się *nie bardzo* uśmiechało

We *can't* all — *nie wszyscy* mogą

After all, we *can't* all have houses. — Zresztą, *nie każdy* może mieć własną chatkę.

I *don't* mean you, Christopher Robin. — *Nie ciebie* mam na myśli, Krzysiu.

4.9. One more point needs to be mentioned in connection with sentence negation. This is the case of *don't think* (*suppose*, *expect*, etc.) with a subordinate clause, which can be rendered in Polish in several ways:

(1) sometimes exactly corresponding to the English version:

I don't expect we shall get very far.
Nie sądzę, żebyśmy poszli bardzo daleko.

(2) but more often by the positive in the main clause, the negative being shifted to the subordinate clause:

I *don't* think we'd better eat them just yet.
Myślę, żebyśmy ich jeszcze *nie* jedli.

(3) A third possibility is the use of *chyba nie*, which is perhaps the best idiomatic rendering:

But I don't think he meant to
Tylko, że on chyba nienaumyślnie

The second of the above types (the most logical one) seems to be in favour in Polish while in English the preference is for type (1), cf. Palmer (1939 : 263): "When either the main clause or the subordinate clause may be made negative without materially changing the meaning of the whole statement it is usual to introduce the negative into the main clause (i.e. the clause that precedes)."

4.10. A construction corresponding to the Polish type (2) does, however, exist in English, and may conveniently be mentioned here. It is found in sentences of the type *I thought not* where *not* does not negative the preceding verb (which is not a special finite), but is equal to a negative clause beginning with *that*. Palmer (1938 : 121) calls it '*not* III' (contrasted with *so*), and states that constructions of that type are less usual and more formal than those of the "I-don't-think-so" type.

V. QUANTITATIVE NEGATION

5.1. The second biggest group of negative exponents are quantitative negatives.

Although sentences containing this kind of negation may be equivalent in meaning to sentences with verbal negation, they are not formally negative. One has to distinguish here between two different bases of classification:

(a) a formal basis, according to which a sentence is either negative or positive, depending on whether it does or does not contain a negative special finite, and

(b) a functional (semantic) basis, according to which it either asserts or denies a fact.

Combining the two aspects we arrive at the following diagram.

	Function	
Form	Assertion	Denial
Positive	(1) I go somewhere	(2) I go *no*where
Negative	(4) I do*n't* go *no*where	(3) I do*n't* go anywhere

The interesting thing is that the two singly marked members (2) and (3) mean the same thing, thus

I don't go anywhere=I go nowhere,

while the doubly marked member *I don't go nowhere* in English comes to mean the same as the unmarked *I go somewhere*.

The above diagram, however, does not apply to Polish, for at least two reasons.

(1) First, the top right sentence type (2) is quite impossible since a quantitative negation in Polish is mutually expectant of a negative verb form (negative sentence). For the same reason the other sentence on the right hand side (3) is also impossible. The only type of sentence with a quantitative negative in Polish is the double negation type (4).

(2) Second, that double negation type form in Polish is, at the semantic level, exactly the opposite of the formally equivalent English sentence, i.e. a regular negative (as in substandard English, cf. *I ain't done nothin*).

The Polish system is thus much simpler, having instead of the four English sentence types a straightforward extremal opposition (both formal and functional at the same time) of a positive vs. negative sentence, corresponding in form to the two left hand side sentences in the English diagram, (1) and (4), respectively, viz.

Form	Function	
Positive =	Assertion	(Idę gdzieś)
Negative =	Denial	(*Nie* idę *ni*gdzie)

The important conclusions following from the above discrepancy of the English and the Polish systems that are already predictable at this stage are that:

(1) English sentences containing a quantitative negative will have to be rendered in Polish by negative sentences.

(2) In any such sentence there will normally be at least two exponents of negation.

(3) The English negative sentences (described in the preceding chapter), when containing a word like *any*, *ever*, etc. (secondary negative) will equally appear in Polish as sentences of double (or multiple) negation, undistinguishable from those under (1).

5.2. The quantitative negatives in English are:

1. *no* (both determinative and adverb; Palmer's (1938 : 118) *no* 2), contrasted with *all*; and its absolute form *none*;
2. noun-pronouns formed from *no*: *no one*, *nobody*, *nothing*;
3. Negative adverbs (formed by prefixing *no*- or *n*- to the interrogative form: *nowhere*, *never*;
4. negative conjunctions: *neither*, *nor*.

Peculiarities to be noticed are:

(1) at the phonological level: *nothing* with /ʌ/;

(2) at the graphical level: *no one*. A spelling like '*noone*' would inevitably be associated with an /u:/ sound in pronunciation. The spellings *no one* and *none* are two alternatives to avoid that difficulty. Other solutions would have to make use of hyphens or diacritics (*no-one*, *noõne*?). The parallel compounds *someone* and *anyone* present no such problems.

The Polish equivalents of the individual words of quantitative negation will now be reviewed one by one.

5.2.1. *No*

1. The regular Polish equivalent of the determinative *no* is *żaden* (in any of the case and gender forms of its full adjectival declension), e.g.

and there was *no* need — i nie ma *żadnego* powodu
where *no* ships came — dokąd *żaden* statek jeszcze nie przypłynął
no exchange of thought — *żadnej* wymiany myśli

2. In most cases, however, *żaden* is omitted altogether, since it would often sound emphatic and superfluous, or else reminiscent of a calque from the German *kein*. Thus most English sentences containing *no* (det.) are rendered in Polish as simple negative sentences with the verb only negatived, e.g.

There was *no* wind
— Nie było ‸ wiatru (not: żadnego wiatru)
Eeyore took *no* notice of them
— Kłapouchy nie zwrócił na nich ‸ uwagi

No blame can be attached to him
— Nie można rzucać na niego oskarżenia

3. *No* (det) is sometimes rendered by means of the preposition *bez*, always governing the genitive:

Well, it's a very nice pot, even if there's
no honey in it — nawet *bez* miodu
No brain at all, some of them — *Bez* śladu mózgu

4. *No* (adverb) is translated by *nie*, e.g.

No better from this side — Wcale *nie* lepsze z tej strony

5.2.2. *None* is rendered by *nikt* and *ani jeden*, but *żaden* is equally admissible. In spite of being held to be singular (as equivalent to *not one*) in English, it is often used as plural in the spoken language, e.g.

I suppose *none* of you are sitting on a thistle
by any chance? — Czy *nikt* z was ...
He hummed in his throat a little, so that *none* of
the words should stick — żeby *ani jedno* słowo ...

5.2.3. *Nobody*

The standard Polish equivalent is *nikt*, and its case forms *nikogo* (gen.-acc.), *nikomu* (dat.), *nikim* (instr.-loc.), e.g.

There must be somebody there, because somebody must
have said "*Nobody*" — Tam musi ktoś być, jeśli powiedział, że nie ma *nikogo*

so there's really *nobody* but Me
słowem nie ma *nikogo* prócz Mnie

5.2.4. *Nothing*

Nothing is rendered by *nic* (nom.-acc.) and its other case forms: *niczemu* (dat.), *niczym* (instr.-loc.). It is interesting that the genitive form *niczego* is not used as object of a negative verb or subject of the *nie ma* construction, and the form *nic* (acc.) is used instead. The phenomenon is explained by Szober (1957 : 227) in the following way (my translation, J.C.): "The form *nic* is, in its origin, also a genitive form. Traces of that origin have been preserved to this day in those expressions, unusual for the present-day feeling of language, where after negatived verbs we use as object the form *nic* which has today the meaning of accusative. Alongside with the forms "nie widziałem pana, nie słyszałem ani słowa" we say "nic nie widziałem, nic nie słyszałem", and not "niczego nie widziałem, niczego nie słyszałem."

The above explanation may be supplemented by the following. The replacing of *niczego* by *nic* might well be due to the mechanical tendency in the language to bring closer the two parallel paradigms, cf.

Nom.	nikt	nic
Acc.	nikogo	nic
Gen.	nikogo	niczego>nic
Dat.	nikomu	niczemu
Instr.-Loc.	nikim	niczym

where the relationship (gen.) *niczego* : (acc.) *nic* is changed to *nic* : *nic* parallel to the relationship (gen.) *nikogo* : (acc.) *nikogo*. Whatever the explanation, the form *niczego* sounds pathetic and artificial. The normal examples are:

Christopher Robin said *nothing* — *nic* nie mówił
nothing came out — *nic* z tego nie wyszło
All that wet for *nothing* — Tyle chlapaniny na *nic*.

5.2.5. *Nowhere*

The dictionary equivalent is *nigdzie*. With verbs of motion one might get *donikąd*; in prepositional phrases *do niczego*, etc.:
Where are we going? said Pooh. *Nowhere* — *Donikąd*.
I mean, it gets you *nowhere* — *do niczego* nie prowadzi

5.2.6. *Never*

1. *Never* with reference to time (contrasted with *always*) is regularly translated by *nigdy*, e.g.

They're funny things, Accidents.
 You *never* have them till you're having them.
 Nigdy go nie ma, dopóki się nie wydarzy.

A frequent phenomenon here is the inversion in English:

Never had Henry Pootel Piglet run so fast as he ran then.
… never had he seen so much rain.

2. *Never* is also used as emphatic verbal negator in English. In this case it is not rendered in Polish by *nigdy*, but by *nie*, often strengthened by some emphatic word (*wcale*, etc.) e.g. You *never* told me — *wcaleś* mi nie powiedziało

3. *Never mind* (if translated by a negative at all) will have *nic*, not *nigdy*, e.g. *Nic* nie szkodzi, to *nic*, etc.

5.3. Quantitative negatives are also rendered by positive forms of the corresponding Polish pronoun,

(a) in the *nie ma* construction with following infinitive — by *kto*, *co*, *gdzie*, etc., e.g.,

so it's *no* good — więc nie ma o *czym* mówić
poor Eeyore has *nowhere* to live — nie ma *gdzie* mieszkać

(b) in questions (direct or indirect) — by *kto(ś)*, *co(ś)*, etc. e.g.

To see that *nobody* interrupted it
— czy *ktoś* tego przypadkiem nie wyjadł
Nobody can be uncheered with a balloon.
— Bo *kogo* nie ucieszyłby balonik?

They can also stand by themselves (absolute function), as laconic answers to questions, e.g.

Isn't there anybody here at all? *Nobody*.
Why, what's the matter? *Nothing*.
You don't often get seven verses in a Hum, do you, Pooh?
Never, said Pooh.

5.4. Quantitative negation in English can also be expressed in another way, namely by a group-negative made up of *not*+a word of the *anything* type. In other words, it is possible (as has been already mentioned) to set up the following equations:

no/none = not any
no one = not anyone
nobody = not anybody
nothing = not anything
nowhere = not anywhere
never = not ever
neither = not either, etc.

There is a theory of the distribution of the two types (Palmer 1939 : 291), based on the assumption that the negative element should be placed as near to the beginning of the sentence as possible. Thus the forms on the left would usually be found

(a) in laconic answers,
(b) when the subject itself is negative,

and the compound type forms in most other cases. *Never*, being already in pre-verbal position, is used in preference to *not ever*.

Sweet (1891 : 85) contrasts the use of spoken (*not any* type) and literary (*no-* type) forms.

When two (or more) expressions of quantitative negation are used in English in the same sentence, the negative element is used only once, with the first word capable of having it, e.g.

nobody has taken any notice
nobody said anything
nothing ever happens
never before had anyone sung ho for Piglet
you've never been to see any of us
he never comes to any harm
he never understands anything

also: I suppose that isn't any good either.

5.5. Polish, of course, as might be expected, follows the opposite trend here. The negative exponents are discontinuous, scattered throughout the sentence, being attached to every word capable of receiving them. Jespersen (1933 : 302) pointed to it as "the tendency to spread a thin layer of negative colouring over the whole of the sentence."

All the Polish quantitative negatives, except *żaden*, contain the negative particle ***ni***- prefixed to the word. This particle is felt to be more emphatic than the verbal negator ***nie***, and is often put earlier in the sentence, before the verbal negation, cf. the following example (with an accumulation of four negative elements):

Nikt mnie nigdy o niczym nie zawiadamia.

(The English original was: Nobody keeps me informed).

5.6. The tendency in Polish to multiply the exponents of negation is also conspicuous with negative intensifiers. By negative intensifiers are meant such intensifiers only as would rarely if ever be used in a non-negative sentence. It is a matter of common knowledge that exponents of negation in English may be intensified by *at all*. This is rendered in Polish by *wcale*, *w ogóle*, *bynajmniej*, *ani krzty*, etc.

5.7. One more point still needs to be mentioned in connection with the pleonastic exponents of negation in Polish: negative conjunctions. The English negative conjunctions ***neither*** and ***nor*** both have their regular equivalent in Polish ***ani***.

1. The negative conjunction ***ani*** must be repeated when joining any element to something negatived, e.g.

nic nie było słychać ani widać
Nie biorę tu oczywiście pod uwagę Maleństwa ani Prosiaczka
Nie jest to warczenie, ani mruczenie, ani szczekanie, ani też chrząkanie

2. ***Ani*** is often put before the first element as well. The resulting combina-

tion *ani* ... *ani* (with the same connective repeated) is of a type unknown in English where there are two different conjunctions only (*either* ... *or*). E.g.

ani ty, ani Puchatek nie macie pojęcia
nigdy już nie zobaczy ani Krzysia, ani Puchatka, ani Kłapouchego

VI. SPECIAL NEGATION

6.1. The quadripartite system shown at the beginning of the preceding chapter for English is not entirely absent from Polish. It is found there in the case of special (lexical) negation, and the correspondence of the two languages is in this instance a perfect one, both formally and semantically, cf.

		Meaning		
Form		Assertion		Denial
Positive	(1)	She is happy Jest szczęśliwa	(2)	She is unhappy Jest nieszczęśliwa
Negative	(4)	She isn't unhappy Nie jest nieszczęśliwa	(3)	She isn't happy Nie jest szczęśliwa

This is the case where double negation in Polish (as usually in English) expresses affirmation, though a little self-restrained (cf. Wackernagel 1924 : : 298). The distinction between types (2) and (3) is that the former is somewhat stronger, this being appreciated when an intensifier like *very* is added to each of the two sentences (Jespersen 1917: 43), cf.

She is very unhappy vs. She isn't very happy.

In Polish, unlike in the case of quantitative negation, where the negative element was the emphatic *ni-* contrasted with the usual *nie*, there are here two negative elements of the same (unemphatic) form *nie*, suggesting the same order of prominence. The negative power of both is thus equally balanced, each *nie* being independent and capable of standing alone in a sentence. The negative particle and the word it negatives are felt strongly to belong to each other, and can in fact as a whole always be replaced by another word of synonymous meaning but positive in form. This is reflected in Polish orthography where *nie* is as a rule spelt jointly with nouns, adjectives, and adjectival adverbs (Jodłowski & Taszycki 1936: 36).

Special negation is formally expressed in English in two ways:

(a) by prefixing a negative *not* to the word (this *not*, termed *not* II by Palmer, (1938) is a lexical negator, always stressed and never weakened to *n't*),

(b) by changing the word into its complementary negative word (this is done with the help of negative prefixes or suffixes).

The two methods are essentially of the same rank. As Sweet (1891: 26) puts it, "Such a derivative element as ***un-*** is an ultimate sense-unit with a very definite meaning, being so far on a level with the word ***not***. But it is not independent: for while ***not*** can stand alone, and can be put before any word with which the general rules of English grammar allow it to be associated, ***un-*** cannot stand alone, and can be used only with certain words".

What Sweet meant here would, in present-day linguistic terminology, be the difference between a bound morpheme (*un-*) and a free morpheme (***not***), the latter being capable of functioning as linguistic unit of a higher rank (a word).

At the semantic level a word of negative 'import' (Jespersen's term) may be used (see chapter VIII).

6.2. *Nót*

Not is used to form the negative of words other than finites and of parts of sentences. It is regularly rendered in Polish by ***nie*** (sometimes, e.g. with gerunds, spelt together). ***Nie*** preceding the negatived word is so universal here that even a change in construction of the sentence in translation (e.g. the rendering of a participle by a gerund or an infinitive, etc.) makes no difference as far as negation is concerned. The sentences are formally positive (affirmative), the finite verb not being negatived.

Examples:

1. With non-finite verb groups

Pooh was so busy ***not looking*** where he was going
— był zajęty niepatrzeniem
So he got into a comfortable position for ***not listening***
— Więc usadowił się w ten sposób, aby móc nie słuchać
Oh, said Piglet, and tried ***not to look*** disappointed
— i usiłował nie wyglądać na rozczarowanego

2. With nominal groups

(To show the contrast clearly an adversative conjunction, like ***a*** or ***ale*** is often used preceding the negative.)

and the conversation would go better,
if he and ***not Pooh*** were doing one side of it
— gdyby on, Prosiaczek, a nie Puchatek
Not the big ones — Ale nie z tych wielkich

(***Not a*** with a noun is a stronger ***no***):
We are going for a Short Walk, he said, ***not a*** Jostle
— a ***nie na żadną*** wyprawę całą bandą

3. With adverbial groups

Not at this time of year — nie o tej porze roku
Not round and round — ale nie w kółko i w kółko

4. With clauses

not so as to be uncomfortable
not that it's easy, mind you

6.2.2. The use of *not* in lieu of a subordinate clause (*not* III) has been mentioned earlier (4.10).

6.2.3. In *what-not not* has lost its negative meaning, and especially in enumerations comes to mean 'everything' by way of double negation (Jespersen 1917: 24). The Polish translation is always positive, e.g.

Pencils and what-not. — Ołówki i *coś* tam jeszcze.

6.3. Negative Affixes.

There are several of those (mostly prefixes) of various origin: Germanic (*un-*, *-less*), Romance (*in-*, *non-*, *dis-*), Greek (*a-*).

6.3.1. The most important of these is *un-* which is also by far the most frequent. Historically it goes back to two different sources (Sweet 1891: 454 f., Jespersen 1942: 464, 476), the fact being of importance for the comparison with Polish, where the original distinction of meaning is clearly reflected in the translation equivalents. It is useful, then, for our purpose to distinguish between

1. *un-* I, the negative prefix added to adjectives in the broadest sense, simple and derived, and adverbs, and
2. *un-* II, the privative prefix added to verbs.

The former is *always* rendered in Polish by *nie*, while the latter is *never* translated by *nie*, but some prefix like *od-*, *z-*, *roz-*

1. Examples of *un-* I Nominal-prefix words:
   uncertain — niepewny
   undoubtably, undoubtedly — niewątpliwie
   unexpected — nieoczekiwany
   unfavourable — niesprzyjający
   unhappy — nieszczęśliwy
   unprecedented — nie notowany dotychczas
2. Examples of *un-* II Verbal-prefix words:
   unbuttoned — odpięła
   unhooked — odczepił
   unlocked — otwierał
   untied — odwiązał się
   unwound itself — rozkręcił się

This use of ***un-*** with verbal roots is quite puzzling to the Polish learner.

6.3.2. The meaning of reversal or undoing of the verbal action is also carried by the Romance prefix ***dis-***, which is more readily accepted and normally translatable into Polish by ***nie-***, e.g.

disobey — nie słuchać (się)
disbelieve — nie wierzyć
disagree — nie zgadzać się
dislike — nie lubić, etc.

6.3.3. Also regularly rendered by ***nie-*** is the negative Romance prefix ***in-***, which is used with Romance words, and rivals with the Germanic ***un-*** I. It is prefixed in accordance with Latin rules, i.e. ***in-*** is assimilated to ***im-*** before labial consonants, to ***il-*** before the lateral, and to ***ir-*** before *r* (in spelling), cf. ***impossible, immortal, illegal, irrational***. In the pronunciation of the last three examples, as well as that of the normal form ***in-*** before ***n*** as in ***innoxious*** there appears of course the same allomorph, simple /i/, according to the rules of English phonology, which prohibit double consonants, though variants with double consonant may be heard, no doubt due to the clear-cut morphemic boundary (cf. Francis 1958: 211).

The difference in usage of the two rivalling prefixes, the Romance ***in-*** and the native ***un-***, has been specified by Marchand (1960: 121) as follows. "On the whole the difference between ***in-*** and ***un-*** is that the latter is the regular prefix with adjectives belonging to the common vocabulary of the language and accordingly stresses more strongly the derivative character of the negatived adjective. The prefix ***in-***, however, can only claim a restricted sphere: it forms learned, chiefly scientific words and therefore has morphemic value with those speakers only who are acquainted with Latin and French."

6.3.4. Even more restricted to terms belonging to science is the Greek prefix *a-* (*alpha privativum*), with its allomorph *an-* occurring before a vowel (also aspirated) according to the linguistic laws of Greek, e.g.

amorphous — bezkształtny, niekształtny
asymmetric — niesymetryczny
anhydride — bezwodnik

6.3.5. The most universal prefix, attached chiefly to nouns, even those modifying other nouns, is the always hyphenated, unchangeable prefix ***non-***. The regular Polish equivalent is *nie*. E.g. *non-intervention, non-existence, non-conductor, non-metal*, but *non-party member* (*bezpartyjny*).

6.3.6. The privative suffix ***-less*** has to be rendered by some prefix, there being no negative suffixes in Polish. There is, again, a choice of two prefixes: ***nie-*** and ***bez-***, e.g.

careless — beztrosko, niedbale
hopeless — beznadziejnie

6.4. Negative prepositions.

The frequent rendering of the negative affixes by *bez-* leads us to the question of the negative preposition *without*. This is used in English with (a) nominals, and (b) gerundials, and rendered in Polish by:

1. preposition *bez* preceding a nominal form, e.g.
without Pooh — bez Puchatka
without thinking — bez namysłu
without it, meaning something — bez powodu
2. *nie* preceding a non-finite verbal form, e.g.
without waiting — nie czekając
without falling in — aby nie wpaść
3. a negative relative clause governed by *bez* (with a necessary antecedent pronoun *tego*), e.g.
without getting up again almost at once
— bez tego, żeby po chwili nie trzeba było wstać
without something having been sneezed
— bez tego, żeby ktoś nie kichnął

As has already been mentioned, *bez* governs the genitive (like the negative verb).

Looking from the other side, we shall find the following equivalents of the Polish preposition *bez* in English:

(a) *without*
(b) *with no*, e.g. *bez* prezentów i torcika
with no presents and no cake

VII. SEMI-NEGATIVES

7.1. *Hardly* and *scarcely* are the words usually referred to by the above term. It is also convenient to discuss *nearly* under this heading, in view of both its semantic interrelation with *hardly* and the Polish equivalent.

Semantically *hardly* is equal to *nearly* (or *almost*) + a negative word, and combinations like *nearly nothing*, *nearly never* are usually replaced by *hardly anything*, *hardly ever* (Palmer 1939: 262), there being a preference for negating the first word (see above 5.4). Formally, then, *hardly* has here a function like that of *not* in combinations of the *not anything* type. Like full negatives, it can also be strengthened by *at all*.

The Polish equivalent of *hardly* is *ledwo* (or *ledwie*), while *hardly ever* is rendered by *rzadko*. The sentence in Polish is positive, cf.

he could hardly speak — ledwo mógł mówić
which hardly ever happened — co rzadko się zdarzało

On the contrary, *nearly*, which is positive in English, is translated in Polish by *o mało co*, the sentence being negative, e.g.

and nearly catch a woozle — i o mało co *nie* łapią łasicy
he nearly fell down — o mało co *nie* przewrócił się

Not nearly is also rendered by a negative sentence, e.g.

It wouldn't sound nearly so well
— Zresztą to nawet nie brzmiałoby ładnie

In isolated cases *hardly* is translated by a negative, and *nearly* by a positive, i.e. in formal agreement with English, e.g.

Hardly at all — raczej nie
When they had all nearly eaten enough
— Gdy wszyscy już sobie dobrze podjedli

VIII. IMPLIED NEGATION

8.1. So far we have been dealing with such instances of negation in English only as had the negative idea expressed clearly by means of clear-cut exponents, formally describable at the grammatical, phonological and graphical levels.

But it has been mentioned already (6.1) that a particular negatived word is actually equivalent to a positive word of synonymous meaning. Thus substituting the formally positive word *miserable* for the negative *unhappy* in the diagram in section 6.1, we obtain the following scheme:

	Meaning	
Form	(Assertion)	(Denial)
Positive	She is happy.	She is miserable.
Negative	She isn't miserable.	She isn't happy.

This system, however, is different from the previous one in two major respects:

(1) There are only two formal types represented here (instead of four), the left hand side formally exactly corresponding to the right hand side.

(2) The difference between the two sides is entirely at the lexical (semantic) level, i.e. in the inherent negative meaning of the positive form *miserable*. But the most important point is that, though *miserable* in this pair is naturally looked upon as negative (*miserable*='not happy'), the order could be logically inverted (*happy*='not miserable'). The headings 'Assertion' and 'Denial'

would then have to be interchanged to agree with the new way of viewing the situation (hence the brackets).

8.2. The problem of mutual relationship between words of positive and negative import in English (or Polish) is not, however, our concern in the present grammatical study. Besides, the study was based on the formal exponent of negation, in at least one of the languages under consideration. This chapter, therefore, purports to review only those formally positive English words, the negative import of which is explicitly reflected in their Polish equivalents by means of a formal negative element. The words can be divided into several groups, according to their Polish equivalents.

1. Negative element is the only possible equivalent, e.g.

anxious — niespokojny
awkward — niezgrabny
danger — niebezpieczeństwo
dowdy — zaniedbany
extremely — niezmiernie
hate — nienawidzić
surprise — niespodzianka
upset — niepokoić

2. There are two possibilities, but

(a) The negative element is more colloquial, e.g.

hostile	wrogi	nieprzyjacielski
shyly	bojaźliwie	nieśmiało, etc.

(b) The negative equivalent is milder, e.g.

bad	zły	niedobry
foolish	głupi	niemądry
little	mało	niewiele
miss	chybić	nie trafić
near	blisko	niedaleko
often	często	nieraz
silly	głupi	niemądry
slight	drobny	nieznaczny
soon	wkrótce	niedługo
wrong	zły	niesłuszny

(c) The negative equivalent expresses a self-restrained approval, e.g.

good	niezła
nice	niebrzydka
well	nieźle

3. The negative equivalent used does not correspond truly to the original word, since

(a) It is rather exaggerated, e.g.

fancy	nie do wiary
grand	niesłychane
very	niesłychanie
wonderful	niezwykły

(b) It is not exactly synonymous, e.g.

accidentally	niechcący
crossly	z niezadowoleniem
different	niepodobny
excited	niespokojny
fierce	niebezpieczny
meekly	nieśmiało
miserable	nieszczęśliwy

The choice in groups 2 and 3 may, to a large extent, be dependent on style, and falls outside the scope of the present study.

8.3. Indirect expression of a negative idea can also be effected by various syntactical means. We are now passing on to such cases where various types of formally positive English sentences become negative in the Polish rendering.

1. The first big group is Questions.

(a) A number of English positive general questions appear in Polish as negative questions. The positive form would be quite unobjectionable in Polish, but it is more usual to use the negative. Jespersen's (1917: 97) explanation of the fact is that there is scarcely any difference between the two forms of questions, the real question being a disjunctive one (of the Will-you-or-will-you-not? type). The particular way of simplifying that complex construction depends on the language: in English a negative question might sound rude, while in Polish it is just the more polite way of asking ('Would-you-mind' type), e.g.

Have you seen him between eleven and twelve?
— Czy *nie* widziałeś go …
Are you hurt? — Czyś sobie czego *nie* zrobił?
Could you ask your friend to do his exercises somewhere else?
— Czy *nie* mógłbyś …
Would you write 'A Happy Birthday' on it for me?
— Więc czy *nie* zechciałbyś napisać …

Owl looked at him, and wondered whether to push him off the tree
— czy go *nie* strącić

The disjunctive pattern of the deep structure postulated by Jespersen appears in:

and wondered if it would rain
— i myślał, czy będzie deszcz, czy nie będzie.

(b) Questions implying negative statement are often translated simply by negative sentences (affirmative or interrogative), e.g.

Any good? — Zdaje się,że *nic* mądrego.
do you know the way? — przecież ty *nie* znasz drogi!
What about me? — A o mnie *nic*?

(c) Also sentences implying uncertainty (asking, wondering, etc.), i.e. question-like in meaning, are made into negatives in Polish, e.g.

I've been wondering about him
— *Nie* wiem, co się z nim dzieje
Correct me if I am wrong
— *Nie* jest wykluczone, że się mylę

2. Negative is also found regularly in Polish in subordinate clauses after

(a) verbs expressing anxiety, doubt, uncertainty, etc., e.g.
wishing that he had gone in for swimming instead
— żałując z duszy serca, że zamiast tego *nie* zaczął pływać

(b) the conjunctions *póki*, *dopóki*, and frequently with other conjunctions such as *zanim*, *odkąd*, etc., e.g.

until he had learned it off by heart
— dopóki *nie* nauczył się jej na pamięć
before it was too late
— zanim *nie* będzie za późno
I make it seventeen days come Friday since anybody spoke to me
— odkąd *nie* zamieniłem z nikim ani słowa

3. A large group of sentences are made negative by
(a) the use of an opposite concept, e.g.
But the noise went on
— Ale rumor *nie* ustawał
He was out — *Nie* było go w domu
You'll be all right
— *Nic* ci się *nie* stanie

(b) Negation is also implied in expressions with *too*, and some comparisons of the *as* ... *as* type, e.g.

This was too much for Pooh
— Tego już Puchatek *nie* mógł znieść
as happy as could be
— szczęśliwy, jak jeszcze *nigdy* w życiu.

(c) Words like *other* (*otherwise*, *else*, *different*, etc), *only*, *difficult* are used as implied negative terms, e.g.

There are lots of noises in the Forest,
but this is a different one
— ale tego jeszcze *nigdy nie* słyszałem
I thought I was the only one of them.
— A myślałem, że więcej takich *nie* ma.

4. *Gone* is often rendered by *nie ma*, there being no Present Perfect tense in Polish, cf.

but, after all, what are birthdays?
Here to-day and gone to-morrow.
— Dziś są, jutro ich *nie ma*.
But the Extract of Malt had gone.
— Ale Tranu już *nie było*.

But positive equivalents are also possible, e.g.
they are gone — znikają

Cf. also: *He's been there — Był, ale go nie ma*, where the negative makes explicit in Polish the idea implicit in the English Present Perfect.

8.4. The same phenomena are found to occur in the reverse direction, i.e., English negative sentences become positive in Polish. Cf.

1. The use of an opposite concept, e.g.
no doubt — napewno, z pewnością
said *nothing* — milczał
nobody's business — moja sprawa
weren't there — byli daleko
won't have more — miał dosyć
wouldn't stop — kręcił się dalej
without saying — w milczeniu

2. The use of words meaning 'different, else, only, difficult', instead of negation, e.g.

you *couldn't* deny — trudno było zaprzeczać
didn't think — był innego zdania

3. The use of rhetorical questions, obviously implying a negative, e.g.

no hurry — po co się śpieszyć?
he *can't* help — co on może zrobić?

and vice versa, e.g.

aren't we high? — jesteśmy wysoko.

A negative question as in the last example in English always implies a positive statement. Cf. Fries (1952 : 167), "The question *don't you like to dance* assumes an affirmative situation, in contrast with the question without the negative, *do you like to dance*, which is entirely without commitment concerning any expected situation." Also Sweet (1891 : 173): "Negative (general) interrogative sentences imply the expectation of an affirmative answer".

IX. CONCLUSION

9.1. General conclusion to be drawn from the above comparison of the English and Polish systems of negation can be summed up under three headings, corresponding to the three main functions of negation, viz.

(1) absolute (contextual, situational) negation (comments on statements and answers to general questions, chapter 3),
(2) grammatical negation (negative sentences and quantitative negatives, chapters 4 and 5),
(3) lexical negation (explicit formal negation and implied semantic negation, chapters 6 and 8).

The systems operative in the individual types differ between the two languages as well as among themselves in each language, and are as follows.

1. Absolute Negation

In answers to general questions (and in comments on statements) in the English system the form of the question (or statement) does not count, the answer (comment) being entirely dependent on the actual fact (extra-linguistic situation). In Polish two factors, viz. both the form of the question (statement) and the situation are interrelated and bear upon the form of the answer (comment).

If the two systems are thought of in mathematical terms, the English system is reminiscent of addition of a relative (positive or negative) number to a number which is indifferent as to its sign, i.e. O (since only O = +O or −O). Thus we get for English

(System I)

	Mathematically (addition to nought)	Linguistically		
		Form of Question	Fact	Answer
(1)	$0+(+1)=+1$	(positive)	positive	yes
(2)	$0+(-1)=-1$	(positive)	negative	no
(3)	$0+(+1)=+1$	(negative)	positive	yes
(4)	$0+(-1)=-1$	(negative)	negative	no

The Polish system, which involves two factors, resembles mathematically multiplication of relative numbers, where two identical signs yield a positive result, while two opposite signs result in the negative meaning of the product. Thus for Polish we have

(System II)

	Mathematically (multiplication)	Linguistically		
		Form of Question	Fact	Answer
(1)	$(+1)(+1)=+1$	positive	positive	tak
(2)	$(+1)(-1)=-1$	positive	negative	nie
(3)	$(-1)(+1)=-1$	negative	positive	nie
(4)	$(-1)(-1)=+1$	negative	negative	tak

The two systems agree only in two out of four cases, viz. when the form of question is positive (unmarked), cases (1) and (2).

2. Grammatical Negation

Systems operative in sentences containing a quantitative expression are even more different in the two languages. In English the system is one of the already familiar multiplication type (System II), the verb and the quantitative expression both bearing upon the meaning of the sentence. The meanings of the individual combinations are:

	Verb	Quantitative Expression	Meaning	
(1)	positive	positive	positive	
(2)	positive	negative	negative	('nothing' type)
(3)	negative	positive	negative	('not anything' type)
(4)	negative	negative	positive	(double negation type)

In Polish the markers do not influence each other in this way, but are cumulative, again resembling addition, but this time addition of two unities of equal importance (thus different from that in System I). The system is:

(System III)

	Mathematically	Linguistically
(1)	$(+1)+(+1)=+2$	
(2)	$(+1)+(-1)=\ \ 0$	(non-existent forms)
(3)	$(-1)+(+1)=\ \ 0$	
(4)	$(-1)+(-1)=-2$	negative meaning

Instead of the usual '1' of the other systems, the results here are either '0' or '2', thus indicating a different nature of the system. '0' means that some constructions have no meaning (and no form), '2' shows the cumulative meaning of some forms. In point of fact, the Polish positive here syncretizes both positive form with asserting function, while the Polish negative combines denying function with negative form. Thus to the English 4-term (two-dimensional) system corresponds in Polish a 2-term (one-dimensional) system. Agreement is found between the two languages only in type (1) sentences, i.e. when no negation is involved.

3. Lexical Negation

In this case the two languages have systems identical both in form and meaning. The systems are of the 'multiplication' type (System II). Agreement is complete in all cases.

The distribution of the above systems in the two languages is then as follows.

	English	Polish
Absolute negation	I	II
Grammatical negation	II	III
Lexical negation	II	II

The only system common to both languages is system II. System I is absent from Polish, while system III is absent from English, so those two would present most difficulty. System III does, however, exist in substandard English
(cf. Conner 1968 : 202:

I ain't never got nothin from nobody),

which may thus help to bridge the gap between English and Polish, while the systems of absolute negation are totally incomparable, and result in frequent confusion of type (3) and (4) sentences.

9.2. Apart from the fundamental systemic differences discussed above, there are a number of specific points likely to create difficulty for Polish learners of English, which will now briefly be enumerated.

1. Unlike in English, the absolute negation and sentence negation in Polish both have the same form *nie*. Poles may therefore find it difficult, especially in the beginning stages of learning English, to use *no* and *not* in their proper places.

2. The use of negative special finites in short answers in apposition to *no* may present difficulty. Poles are inclined to say either more or less than is necessary, i.e. they would either repeat the full verb or drop the special finite altogether.

3. The special finites in question tags present a difficult problem of choosing the right one out of a large number of possible forms, where Polish offers practically no choice. *Isn't it* is often misused here.

4. Of the two types of hypotaxis, viz. *I don't think*+positive clause vs. *I think*+negative clause, the latter is much more popular in Polish and tends to be used for the former in English.

5. With expressions of quantitative negation there is a tendency to use the (structurally closer to Polish) '*not anything*' type in preference to the compact '*nothing*' type. Of course, the principle of a single negative exponent in English has first to be acquired.

6. The difficulty in the use of *no* vs. *none* (both corresponding to Polish *żaden*) is probably of the same order as that of distinguishing *my* from *mine*, etc.

7. *Neither* ... *nor* for *ani* ... *ani* can be learnt easily. Poles find it more difficult to remember that in joining anything to a negative in English positive conjunctions (*and*, *or*, etc.) must be used for the Polish universal negative *ani*. On the other hand, *even* and *why* alone are often misused for *not even* and *why not*.

8. The different negative prefixes (*un*-, *in*-, etc.) equivalent to the uniform Polish prefix *nie*- have to be learnt rather as lexical items. Quite puzzling for the Polish feeling of language is the use of *un*- with verbs. There is no negative suffix like *-less* in Polish, but adjectives of this type are readily negatived by means of an equivalent negative prefix (*bez*-, *nie*-).

9. Semi-negatives are usually encountered at a more advanced stage when the student is already familiar with the chief peculiarities of English negation and can fit them in the appropriate pattern.

10. There is a strong tendency to use Negative-interrogative where Interrogative is normally used in English. The former type is probably more polite in Polish, contrary to the English usage.

11. Negative verb is *de rigeur* in Polish in subordinate clauses with *póki*, *dopóki*, etc., but these also come up at a later stage. The learner had meanwhile been put on his guard here in connection with another peculiarity of such clauses (the use of the Present for the Future tense.).

12. Likely to cause confusion at the semantic level is the case of *mustn't* which, on analogy to Polish, is mistaken to mean the negative of *must*.

13. The way of negativing *all* may present problems. Poles are most likely to say (logically) *Not all is lost*, etc.

14. On the other hand, some other obvious discrepancies seem to be of no consequence for the interference of the mother tongue. E.g. the use of the genitive with Polish negatives does not interfere with the English system. It will probably present a difficulty for an English learner of Polish, but not more difficulty than any other use of Polish case forms.

15. It may also be pointed out that the peculiar English use of *do* in negative sentences, difficult as it is in written English (where the full forms of negatives are used), in spoken English corresponds very neatly with the Polish system, the global form *don't* (purely negative in meaning) fitting readily into the bilingual proportion:

I *don't* go : I go = *Nie* idę : Idę.

Apart from the obvious differences (changes occurring in the auxiliary rather than in the main verb) the general pattern of the negative preceding the verb is much more natural to the Polish learner than the postposition (as in German) or negative entourage (as in French).

Incidentally, the empty auxiliary *do* in the interrogative also fits in the Polish structural pattern with the empty general question marker *czy*, cf.

Do they think : They think = *Czy* (oni) myślą : (Oni) myślą.

This is worth noting, since negatives (and interrogatives) with *do* are more numerous than those with any other special finite.

16. In connection with structural differences one more point might be worth mentioning. English very often makes use of the determinative *no* in nominal phrases. As has been pointed out in 5.2.1, the Polish equivalent *żaden* does not fit very well in the Polish system. Therefore everyday notices of the type *No smoking*, *No entry*, etc. are never rendered by *żaden*, but always changed in such a way as to make it possible to use some other, more suitable negative exponent, e.g. *Nie palić*, *Przejścia nie ma*, etc., or *Palenie wzbronione*, *Droga zamknięta*, etc.

Which once again proves that there is more than one way of expressing negation in language, and the present limited study does by no means pretend to have done justice to all their interesting variety.

REFERENCES

Blackstone, B. 1954, *A manual of advanced English for foreign students*. London: Longmans.

Catford, J.C. 1965. *A linguistic theory of translation*. London: Oxford University Press.

Conner, J. E. 1968. *A grammar of standard English*. New York: Houghton Mifflin Co.

Cygan, J., 1969. "On the functions of syntactical operators in English". *Germanica Wratislaviensia XIII.* 125 - 139.

Firth, J. R., 1957. "A synopsis of linguistic theory. 1930 - 1955". *Studies in linguistic analysis.* Oxford: Blackwell.

Francis, W. N., 1958. *The structure of American English.* New York: The Ronald Press Co.

Fries, C. C., 1952. *The structure of English,* New York: Harcourt Brace and World Co.

Hornby, A. S., 1954. *A guide to patterns and usage in English.* London: Oxford University Press.

Jespersen, O., 1954. *Negation in English and other languages.* Copenhagen: Ejnar Munksgaard.

— 1933. *Essentials of English grammar.* London: George Allen and Unwin Ltd.

— 1942. *A modern English grammar.* Part VI. Copenhagen: Ejnar Munksgaard.

Jodłowski, S. and Taszycki, W., 1936. *Zasady pisowni polskiej i interpunkcji.* Lwów: Wyd. (i druk) Zakład Narodowy im. Ossolińskich. PAN.

Joos, M. 1964. *The English verb.* Madison and Milwaukee: The University of Wisconsin Press.

Marchand, H. 1960. *The categories and types of present-day English word-formation.* Wiesbaden: Otto Harrassowitz.

Marouzeau, J. 1951. *Lexique de la terminologie linguistique.* 3rd ed. Paris: Geuthner.

Palmer, H. E. 1924. *A grammar of spoken English.* 2nd ed. rev. by F. G. Blandford (1939). Cambridge: Heffer.

— 1938. *A grammar of English words,* London: Longmans.

Quirk. R. and Smith, A. H. 1959. *The teaching of English.* London: Oxford University Press.

Sweet, H. *A new English grammar.* Part I (1891), Part II (1898). Oxford: Clarendon Press.

Szober, S. 1957. *Gramatyka języka polskiego.* 4th ed. rev. by Doroszewski, W. Warszawa: PWN.

Wackernagel, J. 1924. *Vorlesungen über Syntax.* Vol. 2. Basel: Philologisches Seminar der Universität.

PRONOMINAL OBJECT IN ENGLISH AND POLISH

TERESA OLSZEWSKA

Maria Curie-Skłodowska University, Lublin

Contrastive analysis concerned with drawing implications of structural similarities and dissimilarities between two languages must involve both formal and semantic criteria. No relevant relationships between two systems can be established on the basis of semantic equivalence alone, although perfect formal-semantic or even formal correspondences are rare. Equivalence, which is the most crucial criterion of selecting particular constructions for comparison, should concern "meaning, shape and distribution" (Whitman 1970 : 193).

The notion of equivalence of grammatical structures such as "pronominal objects" in English and Polish presupposes the existence of basically corresponding forms, i.e. "pronouns" and "objects" in the two languages. The difficulties met in establishing such correspondences are obvious: no form has been more confusingly defined than the pronoun, both in English and Polish grammars[1], since the definitions and classifications offered there are usually based on various admixtures of semantic and formal grounds. For the purpose of the present analysis[2] the pronouns will be treated as primarily a syntactic category, closed in membership and occurring in noun position (the so-called "substantive" or "nounal" pronouns) (see Long 1961 : 45; Klemensiewicz 1962 : 53). However, a few traditional subclassifications will be kept, since in both English and Polish grammars the corresponding pronouns can be found under the same labels, e.g. personal, indefinite, reflexive, demonstrative, relative, interrogative, etc.

---

[1] For detailed reviews of characteristic treatment of the pronoun see: R. Crymes, (1968) and K. Pisarkowa, (1969).

[2] The analysis to be produced is essentially neutral with respect to various theories concerning the "*nature*" of pronouns, alternative ways of presenting pronominalization in the generative grammar, etc.

The notion of object and its subcategorization based, again, on a variety of criteria involve a lot of problems in a contrastive study. Here attention will be drawn primarily to formal contrasts, although, occasionally, more traditional lines will be followed.

A contrastive analysis should proceed through four steps: description, selection, contrast and prediction (Whitman 1970 : 191). First, separate parallel descriptions of the pronominal object constructions in English and Polish will be presented before they are juxtaposed in order to establish the basic correspondences and contrasts, with the aim of localizing possible sources of interference.

1. THE PRONOMINAL OBJECT IN ENGLISH

1.1. Both traditional and structural grammars have recognized and provided terms for several kinds of objects, the occurrences of which being dependent on the types of verbs they accompany. The well-established sentence patterns containing a single object or two objects expressible by pronouns are the following (see Jespersen 1969b : chapt. 11; Zandvoort 1969 : 200-201; Francis 1958 : 348 - 355; Roberts 1962 : 37 - 39):

(a) Subject+verb+direct object

She saw John there.
She saw me there.

(b) Subject+verb+indirect object+direct object[3]

We gave him money.
We gave him something.

(c) Subject+verb+direct object+objective complement

They call him a fool.
They call him that.

(d) Subject+verb+prepositional object

They looked at John.
They looked at him.

---

[3] There is by no means a uniformy of solutions as to some double object sentences, as in:

They taught me Latin,

where Jespersen (1969a: 141) suggests a combination of two direct objects.

It must be emphasized that Modern English makes no distinctions in form with respect to the various kinds of pronominal objects (as seen in the examples below).

cf.	He called ***her***.	(direct object)
	He called ***her*** a taxi.	(indirect object)
	He called on ***her***.	(prepositional object).

1.2. A single object to a transitive verb is known as direct object. It may be expressed by all kinds of "substantive" pronouns. The syntactic function of an object is usually signalled by its position, immediately following the verb (including composite predicates, as "have taken" etc.). It is worth noting that in the case of the so-called "separable" verbs (verb+adverbial particle), for which the nominal object may optionally intervene between the verb and the particle, a pronoun object obligatorily intervenes:

cf. Look the word up in the dictionary.
Look up the word in the dictionary.
Look it up!

1.3. The presence of two (pro)nominals after a verb is familiar under the names of ***indirect object*** and ***direct object***. The slot ***indirect object*** is typically limited to pronouns denoting some sort of animate being, while ***direct object*** is typically limited to nouns or pronouns denoting some sort of inanimate object (that is, something expressible by ***it***).

The rule which is almost universal is to place the indirect object before the direct object, this combination being obligatory when the indirect object is a pronoun and the direct object a noun:

The men can give you that information.
They can give you that.

Exceptions to the general rule are only found in the case of weakly stressed pronominal direct objects, chiefly ***it***, occasionally *them*, which can be placed before another pronoun (indirect object):

Mother told it us.

The English forms prefer the order of

Give it me,

whereas Americans

Give me it.

It is nearly always possible to substitute a group with the preposition *to* for the indirect object[4], the construction being a more emphatic expression of the relation otherwise indicated by the indirect object:

Give it to me.

Sometimes the to-phrase is preferable to the indirect object or even obligatory when the pronoun is shifted to the initial position[5]:

To him they showed everything, to me nothing.

1.4. In the case of *object+objective complement* construction it is usual, though not universal rule, that only the first of the forms can be expressed by a personal pronoun /Hill 1958 : 296/:

I call John a fool.
I call him a fool.

The only exceptions are the pronouns *this* and *that* which can occur as objective complements regardless the form of the direct object:

Don't call John that.
Don't call him that.

1.5. A number of transitive verbs are used with *prepositional objects*. English makes a free use of substantive pronouns in this function, e.g.

He looked at her.
I never thought of that.
etc.

1.6. Summing up, it should be stated that pronouns in English can occur as all the basic kinds of objects, sometimes as forms preferable to nouns (e.g. the indirect object) or, as will be shown later, even as grammatically imperative forms (the reflexive and reciprocal objects). The distinctions between the types of objects are not signalled by the case forms of the pronouns, but they are indicated by other significant structural signals: position, correlation of forms, type of substitutability.

1.7. Among the pronominal objects, some of them occurring exclusively in a pronominal form deserve special attention. When the object of a transitive verb has the same referent as the subject, strict constraints are placed on the object form and the use of a reflexive pronoun in the object function is obligatory:

---

[4] For exceptions see O. Jespersen (1969: 115).

[5] There are also a certain number of verbs and set phrases nearly always combined with *to* (e.g. "ascribe, attribute, dedicate, introduce, etc"), cf. O. Jespersen (1969b: 116).

Direct object: He defended himself.
Indirect object: She made herself some tea.
Prepositional object[6]: She looked at herself in the glass.

The reflexive forms in English are usually restricted to the literal meaning of the reflexive. There is a tendency, however, to dispense with these forms whenever no ambiguity seems likely:

I washed and dressed and went out.

Some reflexive objects cannot be left out:

The teacher introduced himself,

but frequently, reflexive pronouns are unexpressed after many verbs, otherwise transitive:

cf. Don't bother!

but Don't bother me (him, anybody, etc.)

Sometimes the occurrence of the reflexive is optional, but its presence adds the feeling of "effort or achievement or responsibility" (Long 1961: 352):

cf. She is starving to death.
She is starving herself to death.

English has a number of verbs which are always used reflexively (the so-called ***absolute reflexives***, e.g. absent, avail, perjure, bestir, pride, etc.). Their only possible objects are reflexive forms:

e.g. John absented himself from all classes.

1.8. The *reciprocal* object (expressed by the pronominal forms *each other* and *one another*) is related semantically to the reflexive object, but it occurs only when the subject and the object are in the plural, having the same reference, and there is a *crossing of relations*[illegible]*s* between the *agents* and the *objects* of action:

e.g.
They congratulated each other (=X congratulated Y and Y congratulated X).

---

[6] If the preposition has a purely local meaning the simple pronouns are used: He looked behind him to see if anyone was watching.

As in the case of reflexives the reciprocal is often implied rather than expressed:

They meet occasionally.
They kissed.

1.9. The specific object function of the pronoun *it* should not escape attention. As other personal pronouns of the 3 pers. sg. and pl., *it* is used chiefly anaphorically (in the deictic function, given a strong stress, *it* must be substituted for by *that*). However, as an object, *it* can signal anticipatory reference as well, representing subordinate clauses and infinitival phrases, used as delayed appositions to *it* in constructions which permit postponement of these structures:

e.g. I know it for sure that she might be ill.
I think it wrong to lie.

In this finction *it* is called a "provisional object" (Zandvoort 1969: 135), or "preparatory it" (Jespersen 1969b: 154).

Sometimes *it* has no clear semantic content and yet formally functions as an object ["formal object" (Zandvoort 1969: 136) or "unspecified it" (Jespersen 1969b: 156)]:

Rough it!
He likes to lord it over people.

2. THE PRONOMINAL OBJECT IN POLISH

2.1. Investigations in Polish descriptive grammar have usually been concentrated on studies of case systems with the objective of finding syntactic meanings for each case[7]. As regards objects, the definitions and classifications found in grammars are usually based on strictly semantic grounds, or on case distinctions. However the formal criterion of the possibility of passivization with respect to the verb has served as the basis for distinguishing between the direct and indirect objects (Szober 1962: 310 - 311; Klemensiewicz 1969: 41). The correspondences between these two types and the case distinctions can be presented as follows:

---

[7] A results of this approach is for instance, double and overlapping classification of objects, as that presented by Z. Klemensiewicz (1969: 40 - 48). Objects are classified primarily on the basis of their semantic relationships with the verb (e.g. "the receiver of the action", "the instrument" etc.). Parallel classification is based on case distinctions and an attempt is made to associate particular case functions with respective meanings of objects. In view of the very heterogeneous relations between verb and object this classification cannot serve as the basis for any contrastive analysis.

Direct Object:	*Indirect Object*:
Genitive O.	Genitive O.
Accusative O.	Dative O.
Instrumental O.	Accusative O.
	Instrumental O.
	Prepositional O. (prepositions+all dependent cases)

2.2. The direct object may be expressed by a variety of substantive pronouns, the personal, indefinite and demonstrative pronouns having the most frequent occurrence (Pisarkowa 1968: 188). The cases typical of the direct pronominal object are the accusative and genitive, the instrumental being less common.

Examples:

acc. D. O.	Znam ją (I know her).
gen. D. O.	Nienawidzę jej (I hate her).
instr. D. O.	Pogardzam nią (I despise her).

The lexical meanings expressed by verbs governing each particular case are so heterogeneous that it is hardly possible to classify these verbs into any semantic subcategories. However, it is worth noting that the genitive case has a tendency to combine with negated verbs, as well as verbs of ***negative quality*** with no phonological reflex of negation [e.g. zapomnieć (forget), odmawiać (refuse), etc.]; it also occurs in structures implying quantitative restrictions (the so-called *partitive genitive*[8]), and with many other verbs.

Examples:

Znam ją /acc./ (I know her),

but, if negated:

Nie znam jej /gen./ (I don't know her)

Partitive gen.: Próbowałem tego (I have tried that).

An exception to the general rule that the direct object following a negated verb must be in the genitive is met in the case of the indefinite pronoun *nic* (*nothing*). After a negated verb both *nic* (acc.) and *niczego* (gen.) occur[9], although the latter form usually requires some complementation (an accompanying adjective or adverb):

---

[8] The apparent contrast seen in Polish between accusative and genitive (partitive) direct objects, e.g.

Daj mi chleb (Give me the bread).
Daj mi chleba (Give me some bread).

is not a difference in the syntactic function of the object (pro)nominal relative to the verb, but is rather a difference which in English falls into that area of syntax that deals with the effect of the choice of article on the semantic content of the associated noun.

> Nie widzę nic.
> Nie widzę niczego tutaj.
> Nie widzę nic godnego uwagi.
> Nie widzę niczego godnego uwagi.

The instrumental is not affected by negation:

> Interesuję się tym.
> Nie interesuję się tym.

2.3. As can be shown the term ***indirect object*** in Polish refers to a much wider range of constructions than the corresponding term in English. It covers the grammatical meaning of the English ***indirect object*** together with some relationships which in the equivalent English constructions are expressed by direct or prepositional objects:

e.g.

(Ind. dat. O.)	Przyniosłam mu książkę.	=	I brought him a book (Ind. O.)
(Ind. dat. O.)	Pomogłam mu.	=	I helped him. (Dir. O.)
(Ind. instr. O.)	Nie martw się tym.	=	Don't worry about this. (Prep. O.).
(Ind. prep. O.)	Zaczekaj na niego.	=	Wait for him. (Prep. O.).

The dative pronominal object (partly corresponding to the English indirect object) is a very common structure in Polish (Pisarkowa 1968: 194). As a rule it is expressed by an ***animate*** personal pronoun and accompanied by another object, direct or indirect-prepositional. In the case of two pronominal objects the distinction *direct — indirect* is signalled by their case forms, the ordering of the two elements being nondistinctive and syntactically irrelevant. Some regularities observed in the placing of pronominal objects are largely dependent on the means of expressing emphasis, as will be shown below(see 2.5.).

In the prepositional object the pronoun may occur in all dependent cases. The case governed by the preposition is part of the basic information about it and must be learned along with its lexical meaning.

2.4. The reflexive expressed by a reflexive pronoun occurs when the subject and object have an identical referent. A reflexive pronoun functions both as the

---

[*] There is no necessity of signalling the case oppositions, since the pronoun *nic* does not occur in a positive sentence.

direct and indirect objects, and can, consequently, assume all the dependent case forms (gen. *sobie/się*, dat. *sobie*, acc. *siebie/się*, instr. *sobą*, loc. *sobie*).

Examples:

Direct acc. O. Skaleczyłam się. (I cut myself).
Indirect dat. O. Zrobiła sobie herbaty. (She made herself some tea).
Indirect instr. O. Zachwycała się sobą. (She admired herself).
Indirect prep. O. Mówiła do siebie. (She talked to herself).

It is worth mentioning that the reflexive forms are identical for all persons, all gender and number distinction being lost:

cf. Skaleczyłam się (I cut myself)
On skaleczył się (He cut himself).

A distinction should be made between the occurrences of the reflexive pronouns in the accusative or genitive (*się*), functioning as the direct object, and the uses of the enclitic particle *się*, accompanying a number of intransitive verbs, e.g. *śmiać* się (laugh), *bawić się* (play), etc.

A formally reflexive construction is frequently used with inanimate subjects when no mention is given to the "performer" of the action:

Waza się stłukła (The vase got broken).
Samochód się zatrzymał (The car stopped).

The reflexive particle *się* is also found in impersonal "subjectless" sentences indicating an action with no regard to the performer:

Tu mówi się po polsku (Polish is spoken here).

(Note that with the subject expressed the verb would not take the particle *się*).

The reflexive pronoun *siebie/się* may imply reflexive meaning or, sometimes, with the subject in the plural, a reciprocal meaning:

Oni oszukują się.
cf. English: 1) They cheat themselves.
2) They cheat each other.

2.5. Some of the personal pronouns occurring in the object functions have alternative forms in the dative and accusative, the so-called *longer* or *full* forms, and *shorter* or *enclitic* forms[10]:

Nominative:	*Dative*:	*Accusative*:
ja (I)	mnie/mi	mnie/mię
ty (you)	tobie/ci	ciebie/cię

---

[10] Actually there is also the third form in the 3rd person sg. and pl. (e.g. *niego*, *niej*, *niemu* etc.) used only and always after prepositions.

on (he)	jemu/mu	jego/go
ono (it)	jemu/mu	je
—	sobie	siebie/się

Generally speaking, with respect to the accusative case, the shorter forms are the common ones, with the exception of the 1st person sg. (Pisarkowa 1968: 188). The *full* pronominal forms are used in the initial position in a sentence, or after prepositions, or when given extra stress (Klemensiewicz 1962: 84 - 89):

cf. Widzieliśmy go (We saw him).
Jego widzieliśmy na ulicy (We saw him in the street).
Widzieliśmy jego a nie ją (We saw him and not her).

In dative case objects the use of the *longer* and *shorter* forms is optional to some extent in positions other than the initial one. The longer forms are obligatory in initial positions and after prepositions governing the dative case:

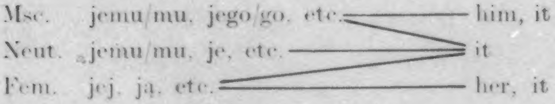
Jemu nikt nie może pomóc (Nobody can help him).
Walczyli przeciwko niemu (They fought against him).

3. CONTRASTIVE ANALYSIS

In the following section an attempt will be made to bring out some correspondences and dissimilarities between the pronominal object structures in English and Polish, together with a few suggestions concerning the possibility of interference.

3.1. A detailed examination of the lexical equivalence of pronouns occurring in object positions in English and Polish falls outside the domain of the present study. It seems, however, that the choice of corresponding pronouns in each of the two languages offers little difficulty, since the uses of these pronouns appear to be fairly parallel.

An apparent contrast, however, occurs with respect to the selection of substitutes with relation to gender. *Gender* in English is mainly a matter of the choice of one of the three personal (or possessive) pronouns in the 3rd person sg., dependent on the type of reference: animate msc. — *he*, animate fem. — *she*, and inanimate — *it* (the principle sometimes being crossed by other considerations). In Polish, where gender is a grammatical category applying to a number of pronouns, the pronoun must show agreement in grammatical gender with its referent. For instance, the equivalence of 3rd person pronouns in the object forms is as follows:



3.2. As regards formal equivalence of the object constructions in the two languages it has been shown that the basic distinction between *direct — indirect* objects is recognized both in English and Polish grammars. It should be emphasized, however, that there is by no means a one to one correspondence between the respective types in the two languages. If passivization is employed as the basic test for identifying the direct object it can be observed, for instance, that the English direct object may follow a preposition, which does not hold true for Polish:

cf. They sent for him. — Posłali po niego.
He was sent for. —

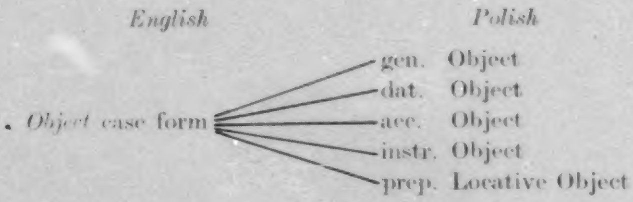
A number of English verbs, transitive and followed by a direct object, correspond to intransitive verbs in Polish:
cf.

She helped me (V+Dir. O.) = Ona mi pomogła (V+Ind. dat. O.)
I was helped by her. —

Some English prepositional objects correpond to Polish indirect non-prepositional instrumental objects (see 2.3.).

In view of such discrepancies as presented above, it may be assumed that a learner of each of the two languages is apt to have some difficulties with the identification of equivalent but formally different object constructions.

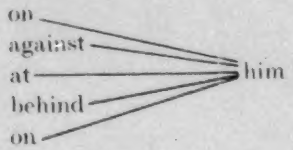
3.3. As has been pointed out, Polish, a highly inflectional language, distinguishes between objects also according to case, whereas English has no such distinctions. Theoretically, one object case form in English corresponds to five case forms in Polish:



Since all substantive pronouns are declinable, an English learner of Polish may face immense difficulties in making a correct choice in regard to the case in which the pronoun object should appear.

3.4. The same concerns the prepositional object, since various prepositions govern all dependent case forms, some of them taking objects in more than one case with different meanings:

cf. *English* *Polish*



od (do, z, dla) niego (gen)
przeciwko niemu (dat)
na (o) niego (acc)
za nim (instr)
na (o, przy) nim (loc)

3.5. As is well known, English differentiates between various (pro)nominal sentence structures mainly by position, whereas Polish primarily by case distinctions. An important contrast, then, is the significance of word order in signalling the syntactic functions of the pronominal objects, English structures displaying rigid ordering patterns, Polish, on the other hand, showing greater freedom of disposing of the pronominal objects (cf. 1.3. and 2.3., respectively). In English the pronoun usually follows the verb, almost always directly. In Polish the position typical of the pronominal object appears to be also that after the verb, yet the possibility of extensive free variation is commonly recognized. For example, the pronominal direct object in Polish is quite likely to be shifted to the initial position:

cf. Powiem ci wszystko. (I will tell you everything)
or Wszystko ci powiem.

In English such departure from the fundamental ordering is significant and requires a special phrase-separation by means of intonation, whereas in Polish it is not relevant syntactically.

It should be remembered that the positioning of the Polish pronouns, commonly enclitic in the object functions, is subject to stress requirements. Consequently, a pronoun may even intervene between the two parts of the composite predicate, which is impossible in English.

e.g.

Jutro będziesz to miał (You will have that tomorrow).

As regards the double object sentence types it can be noticed that the English constructions usually follow well-established ordering patterns, whereas Polish constructions reveal great flexibility in the disposing of pronominal objects (see 1.3. and 2.3.).

Considering all this, it seems that in English errors are likely to be made in word-ordering with respect to the positions of pronominal objects.

3.6. Attention should be drawn to the use of some dative pronominal object structures in Polish, which correspond to non-object constructions in English. The personal pronoun often occurs in the so-called "subjectless" sentences, where, formally, it performs the function of the dative object:

Żal mi go było	(I was sorry for him).
Było mu zimno	(He was cold).
Chce mi się spać	(I am sleepy).

etc.

As can be seen, this dative object finds a subject equivalent in English.

Another, extremely common type of the dative object is the so-called "dative of interest" (Klemensiewicz 1968: 42 - 43). With intransitive verbs this structure occurs only in Polish, being no longer found in Modern English. It usually corresponds to English possessive structures:

Umarła mu matka	(His mother died).
Zginął mi zegarek	(My watch has been lost).

With some verbs this construction is occasionally found also in English although the possessive form is more regular:

cf. Patrzył jej w oczy — He looked her in the eyes.
but: The occulist looked in her eyes.

It seems that English learners of Polish might tend to extend the distribution of possessive pronouns to contexts usually employing the "*dative of interest*".

3.7. Some points should be raised with respect to the reflexive object and the use of reflexive forms in the two languages. In both languages the same constraints are placed upon the identity of the subject and object forms, requiring that the reflexive pronoun is used in the object function (cf. 1.7. and 2.4.). It must be observed, however, that in English the reflexive pronoun is frequently dispensed with, whereas in Polish its occurrence is obligatory:

cf. He washed and dressed.
Umył się i ubrał.

In view of the fact that Polish makes an abundant use of the *reflexive* forms also with intransitive verbs, the Polish learner of English may tend to use the reflexive pronouns with a typical frequency, whereas the English learner of Polish may tend to omit the reflexive pronouns that are not parallelled in comparable English expressions.

It should also be noted that the two languages differ in the use of pronouns expressing the reciprocal relationships. English differentiates between the reflexive and reciprocal formally (by means of different pronouns), whereas Polish uses one common pronominal form to denote both relationships (cf. 1.8. and 2.4.).

It is worth noting that the reflexive pronoun will occur in Polish also in the contexts where English uses a simple pronoun, namely, in prepositional phrases with an adverbial function:

cf. Patrzyła prosto przed siebie.
She looked straight in front of her.

3.8. Summing up the results of the analysis it should be stated that the pronominal object constructions in English and Polish are basically comparable, frequently equivalent with respect to lexical meaning and formal similarities. The most essential contrasts brought out in the analysis concern the means of expressing various object relationships (case distinctions, positioning, correlation of forms), essentially different in the two languages. A few points have been raised with regard to pronominal object structures not parallelled formally in the corresponding structures of the other language. It seems, however that the formulation of a prediction of difficulty or error should be supported by some more direct applications of psycholinguistic theory.

REFERENCES

Crymes, R. 1968. *Some systems of substitution correlations in modern American English.* The Hague: Mouton.

Francis, W. N. 1958. *The structure of American English.* New York: The Ronald Press Company.

Hill, A. A. 1958. *Introduction to linguistic structures: from sound to sentence in English.* New York: Harcourt, Brace and World Co.

Jespersen, O. 1969a. *Analytic syntax.* New York: Holt, Rinehart and Winston.

— 1969b. *Essentials of English grammar.* London: George Allen and Unwin Ltd.

Klemensiewicz, Z. 1962. *Podstawowe wiadomości z gramatyki języka polskiego.* Warszawa: PWN.

— 1969. *Zarys składni polskiej.* Warszawa: PWN.

Long, R. B. 1961. *The sentence and its parts.* Chicago: The University of Chicago Press.

Pisarkowa, K. 1968. "Zaimek w polskim zdaniu. 3. Obserwacja zaimka odmiennego w grupie orzeczenia". *Język polski* 48. 187 - 201.

— 1969. *Funkcje składniowe polskich zaimków odmiennych.* Wrocław: Ossolineum.

Roberts, P. 1962. *English sentences.* New York: Harcourt, Brace and World Co.

Szober. S. 1962. *Gramatyka języka polskiego.* Warszawa: PWN.

Whitman. R. L. 1970. "Contrastive analysis: problems and procedures". *Language Learning. A journal of applied linguistics*, vol. 20.2.

Zandvoort. R. W. 1969. *A handbook of English grammar.* London: Longmans.

ATTITUDINAL ADJECTIVES IN ENGLISH AND POLISH

ALICJA WOŁOSZYK

Adam Mickiewicz University, Poznań

The task of the present paper is to classify attitudinal adjectives in English and Polish, present their syntactic features, and compare the relations between attitudinal adjectives of these two languages. The model which will be followed in the paper is that of Fillmore's as described in the article "The Case for Case" (cf. Fillmore 1968) and modified by D. Terrence Langendoen (1969) and Ekkehard König (1970). The cases which have been found useful in the description of these languages and which will be most often used here are the following:

Agent (A) — the animate perceived instigator of the action identified by the verb.
Objective (O) — the semantically most neutral role, the case of any noun whose role in the action or state identified by the verb is identified by the semantic interpretation of the verb itself.
Experiencer (E) — the entity which receives, accepts, experiences or undergoes the effect of an action.
Instrument (I) — the immediate cause.

(cf. König 1970: 61)

The formations taken into consideration here are the following:

1) Equi NP Deletion — which deletes the NP in the embedded sentence identical to the Np of the matrix sentence.

2) Subject Raising Transformation — which raises the subject NP of the embedded into the matrix sentence and makes it the derived subject of the whole complex structure.

3) Extraposition Transformation — which copies a clause at the end of a clause in which it is contained and deletes the original clause or replaces it by a pronoun "it" (in English).

Let us analyse English attitudinal adjectives to show their syntactic and semantic peculiarities. We shall adopt Ekkehard König's manner of presentation from his description of English and German attitudinal adjectives in "Adjectival Constructions in English and German. A Contrastive Analysis." (1970).

The class of English attitudinal adjectives consists of such items as following: *careless*, *clever*, *crazy*, *absurd*, *foolish*, *mean*, *silly*, *(un)wise*, *rude*, *polite*, *sensible*, *mad*, *stupid*, *noble*, *naive*, *rash*, *perceptive*, *bold*, *civil*, *ungrateful*, *honest*, *just*; all of them judging or describing human behaviour. Two more could be added: *false* and *splendid* but the imperatives of these are very odd.

Attitudinal adjectives may occur in imperatives:

E1. Be honest!
E2. Don't be stupid!

They can also co-occur with the progressive aspect of the present tense:

E3. John is being ungrateful.

The above examples show that attitudinal adjectives have Agent as one of their arguments. This argument is realized as John in the series of the examples below. These, at the same time, are the constructions which define the class of attitudinal adjectives in English.

E4a. It was rude of John for him to insult me in front of all these people.
E4b. It was rude of John that he insulted me in front of all these people.
E4c. It was rude of John to insult me in front of all these people.
E4d. Insulting me in front of all these people was rude of John.
E4e. It was rude for John to insult me in front of all these people.
E4f. John was rude to insult me in front of all these people.
E4g. John rudely insulted me in front of all these people.

Attitudinal adjectives have certain selectional properties. They may choose Agent as one of their arguments. The embedded clause in the above sentences may be analysed as Objectives. Experiencer may be another argument that can be selected by attitudinal adjectives.

E5. She was very unkind to me.

Two subgroups of attitudinal adjectives may be distinguished. Adjectives like *wise* or *bold* are two place predicates and may combine with Agents and Objectives. Their argument structure is represented as follows:

wise [— (A)(O)] (cf. König 1970: 78)

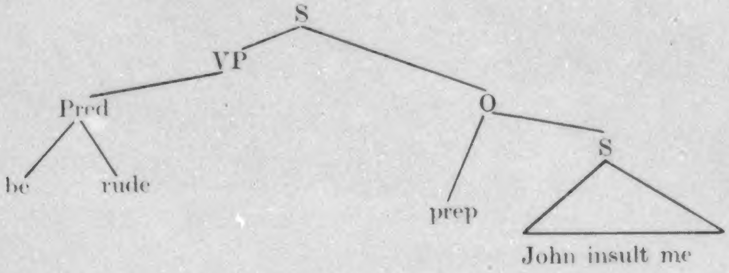
Whether or not A is optional depends on the choice of Equi NP Deletion or Subject Raising in the deep analysis of, let us say, E4f. The interlocking parentheses mean that at least one element in the parentheses must be selected though both may be. Noun phrases with the function Objective must be rewritten as S, as is the case in the embedded sentences in E 4.

According to König adjectives which involve a certain "moral" component such as *mean*, *nasty* could be analysed as three-place predicates. In his opinion however, they cannot combine with three arguments. On the other hand examples such as

John was mean to me to insult me in front of all those people.

show that there are grammatical sentences in which adjectives like *mean* or *nasty* can combine with three arguments their order being as follows: AEO.

The sentences listed under E4 have undergone certain transformations. In E4a, b, c, d and e the Objective has been subjectivalized; E4a, b, c and e have undergone Extraposition; in E4a and b the second NP John has been prominalized. E4c and d are the result of the Equi NP deletion. In E4a and E4c the For — to complementizer has been introduced. We may assume that no Agent has been selected for the matrix sentence in the underlying structure of E4f.



E4f could also be derived from this underlying structure by means of Subject Raising transformation, where the subject NP John of the embedded sentence becomes the subject of the whole complex sentence.

If we assume that in E4f the Agent has been chosen as subject instead of assuming that the Agent is unspecified, we shall avoid the possible difference in meaning between E4f and the preceding sentences. Otherwise we can assume that E4f implied that John was unaware of his rude action or that he did not intend it.

If subjects are chosen from the set of cases associated with a particular predicate a certain order of priority should be observed. In most cases the order is A, E, I, O, etc... For most adjectives, however, attitudinal adjectives in particular the order of priority for subjectivalization is O, A.

In E4f the Agent was chosen as subject, for reasons explained above. The following transformations are thus applied to A in the course of derivation of E4f: first, Agent John is subjectivalized, then the NP John of the embedded sentence is deleted by the application of Equi NP deletion. This transformation is obligatory when the Agent is chosen as subject. For-to complementizer is also automatically deleted from the personal construction.

Sentences such as E4g differ in communicative function from the rest of the examples. One could assume that E4g is deleted from:

E6. John insulted me in front of all these people and that was rude of him.

where *that* is the result of prosententialization.
E4g includes information and comment; it can also be relativized:

E7. John insulted me in front of all these people which was rude of him.

E4g includes an adverb. In English only a subset of the list of attitudinal adjectives can form constructions like E4g and permit adverb formation: *courteous*, *kind*, *polite*, *rude*, *generous*, (*un*)*wise*, *optimistic*, *sensible*, *selfish*, *naive*, *right*, *ridiculous*, *bold*, *ambitious*, *clever*.

An adjective in initial position, not necessarily an attitudinal one, may be semantically equivalent to an attitudinal disjunct or the same adjective as base. They may be analysed as superordinate clauses to which the related clauses are subordinated. They differ from disjuncts in that they are immobile.

(i) It is ADJECTIVE BASE (that) CLAUSE

E8a. Strange, it was him, Don, who had always wanted to go there.
E8b. Strange how he always wanted to go there.
E8c. *Strangely how he always wanted to go there.

The above example are verbless clauses with zero *It is*. The next example is a clause with zero *What is*.

(ii) What is ADJECTIVE, CLAUSE

E9a. Strange, it was him, Don, who had always wanted to go there.
E9b. What is strange, it was him, Don, who had always wanted to go there.

This clause corresponds to the following one:

(iii) What is ADJECTIVE is (that) CLAUSE

E10. What is strange is (that) it was him, Don, who had always wanted to go there.

What here corresponds to *which* in:

E11. It was him, Don, who had always wanted to go there which is strange.

Adjective groups with comparatives *more* or *most* also may be semantically equivalent to attitudinal disjuncts that have the same adjective bases and are similarly modified.

E12. Even more important, he may have reached the place by now.

. . . .

Attitudinal adjectives in Polish have the same semantic function as they have in English. They describe contemporary human behaviour. The following items belong to the class of attitudinal adjectives in Polish:

P1. uprzejmy, grzeczny, wrażliwy, rozsądny, szalony, głupi, nierozważny, ordynarny, mądry, szlachetny, niewdzięczny, naiwny, odważny, podły, uczciwy.

Attitudinal adjectives may occur in the following constructions:

P2a. To było bardzo ordynarne ze strony Piotra, że nas obraził.
P2b. To było bardzo ordynarne ze strony Piotra — obrazić nas.
P2c. Obrażenie nas było bardzo ordynarne ze strony Piotra.
P2d. Piotr był bardzo ordynarny, że nas obraził.
P2e. Piotr był bardzo ordynarny obrażając nas.
P2f. Piotr ordynarnie obraził nas.

Let us test Polish attitudinal adjectives in the same way as we tested English. All attitudinal adjectives can occur in imperatives:

P3. Bądź grzeczny!
P4. Nie bądź naiwny!

This suggests that one of the arguments has the role of an Agent, which is realized as *Piotr* in all the P2 examples. The embedded clauses can also be analysed as Objectives.

Attitudinal adjectives may also select another argument — Experiencer.

P5. Ola była dla mnie bardzo wyrozumiała.

In many instances the word order in Polish is a matter of topicalization. We could also say:

P6. Ola była bardzo wyrozumiała dla mnie.
or: P7. Ola dla mnie była bardzo wyrozumiała.

Word order, however, is a matter of secondary importance since it is a surface structure phenomenon.

As in English or German, there are three-place predicate attitudinal adjectives in Polish. They may co-occur with Agents, Experiencers and Objectives. In Polish, as in English, there is a specific construction in which all the three arguments may be selected:

P8. Piotr był ordynarny wobec mnie obrażając mnie przy nich wszystkich.

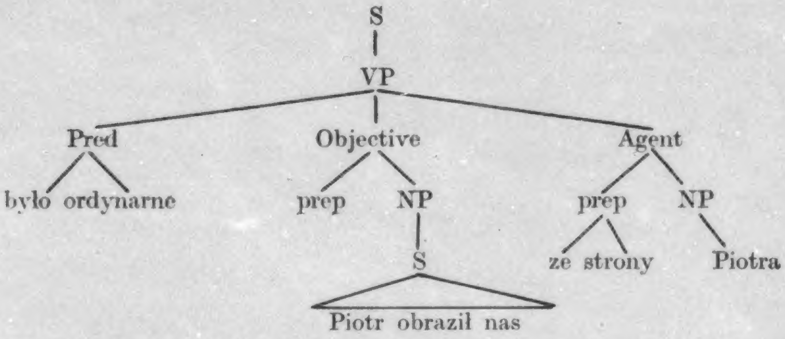
In both the languages, however, adjectives like *wise* and *bold* or *rozsądny* are restricted from realizing three arguments:

P9. rozsądny [—(A≬O)]

All the examples of the constructions in which the attitudinal adjectives may occur in Polish are similar or even equivalent as far as meaning is concerned. The only minor difference that can be noticed in conveying information is that between *P2f.* and the rest of *P2.*. Examples *P2a, b, c, d,* and *e* could hardly serve as a means of informing somebody that *Piotr* was rude to us. This is assumed beforehand. Only sentence *P2f.* conveys this as something new.

Since all these examples are paraphrases of a certain underlying structure it might be worthwhile to derive them from one structure. The underlying structure for sentences like *P2a, b, c, d, e* may be represented as follows:

Ph I.



The question may arise as to whether the impersonal or personal construction should be taken as basic and what is the direction of the derivation. P.S. Rosenbaum's theory would be best applicable to Polish since in Polish, as well as in German, attitudinal adjectives can be nominalized in impersonal constructions but not in personal ones:

P10a. Było niegrzeczne z jej strony spóźniać się tak bardzo.
P10b. Było brakiem grzeczności z jej strony spóźniać się tak bardzo.

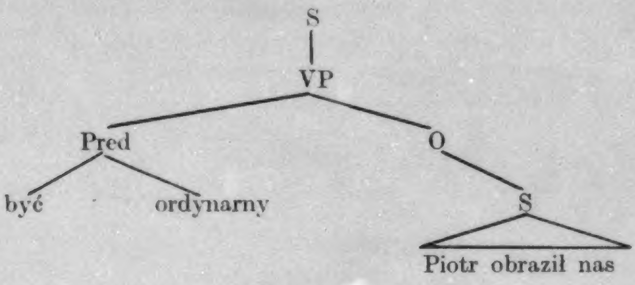
In Polish sentences *P2a*, *b* and *c* the Agent has been subjectivalized and the sentences have undergone Extraposition.

In a Polish sentence with an emotive predicate like *P2*, there is a possibility of substituting a participle for the construction *że*+*S* (i.e. that+S) with no change in the meaning of such a sentence. Both solutions are possible because the sentences are derived from the same construction, cf. examples *P2d* and *e*.

In E4b the second occurrence of the noun phrase *John* has been pronominalized, whereas in Polish it is impossible for reasons of style.

If the phrase marker *Ph I* undergoes Equi NP Deletion we will get sentences like *P2b* and *c*.

Ph II.



If we apply Subject-Raising Transformation to this underlying structure we may get sentences like *P2e*. Subject-Raising Transformation raises the subject NP of the embedded sentence into the matrix sentence and makes it the derived subject of the whole complex structure. This transformation occurs fairly often in Polish. This might, however, change the meaning of *P2e*, since the NP *Piotr* is moved out of an underlying Objective, and there is no Agent in the matrix sentence. One would expect Piotr to be unaware of the fact that he was rude. But there is no difference in meaning between *e* and the rest of the examples, so we can assume that Agent in this sentence has been chosen as subject. The other solution would be to assume that no Agent has been selected for the matrix in the underlying structure. The first possibility, however, is preferable and the transformations applied to Agent in the course of derivation are: Subjectivalization and Equi NP Deletion.

In Polish the order of priority for subjectivalization is A, O since impersonal constructions are much rarer in Polish than in English.

Sentences like *P2f*. are derived from coordinated structures like the following:

P11. Piotr obraził nas i to było ordynarne z jego strony.

to is the result of a prosententialization and corresponds to English *that*.

Containing information *Piotr obraził nas* and a comment *to bylo ordynarne z jego strony*, the sentence is a paraphrase of *P2f*.. If it undergoes relativization, we will get:

P12. Piotr obraził nas, co bylo ordynarne z jego strony.

The Polish examples *P2* from *a* to *e* show that there is a great deal of correspondence between English and Polish as far as these constructions are concerned. It is, however, not always possible when considering a construction of this type with a certain adjective in one language to predict that the respective construction with the lexical equivalent of that adjective will be acceptable in the other language. In both the languages there are irregularities in the distribution of the lexical items that occur in these constructions. Some adjectives may occur only in personal constructions (*zly*, *oszukany*) other only in impersonal ones (*nieprawdopodobny*, *niewytlumaczalny*), Incongruity may exist between structural correspondence and lexical correspondence between two languages even in case of two formally very similar constructions. Sentences P2f and E4g may serve as the example. They are formally similar but in English attitudinal adverbs precede the verb, and in this respect differ from adverbs of manner which usually follow intransitive verbs.

E13a. John generously contributed.
E13b. John contributed generously.

In Polish, however, since the word order is less strict than in English, the corresponding adverbs follow the main verb and the indirect object, or they may occupy the initial position. They also resemble sentence adverbs and may cause structural ambiguity, e.g.

P13a. Jan szczodrze zapłacił robotnikom.
P13b. Jan zapłacił robotnikom szczodrze.
P13c. Szczodrze zapłacił Jan robotnikom.

This may either be interpreted as manner or attitudinal adverbs. If there is only one interpretation possible in such cases this will probably be due to certain selectional restrictions between verbs and those two types of adverbs which are not understood adequately at present.

In Polish almost all attitudinal adjectives can form adverbs, and what follows, almost all of them are permissible in constructions Like P7. The only exception is a small group of adjectives expressing the state of mind: *szalony*, (as opposed to "*szaleńczy*"), *postrzelony*, *wrażliwy*, *rozeźlony*, *rozwścieczony*.

In Polish as well as in English we can find adjectives in the initial position equivalent semantically to attitudinal disjuncts.

P14. Dziwne to właśnie on marzył, żeby tam pojechać.

Three groups may be distinguished here:

(i) It is ADJECTIVE BASE (that) CLAUSE

P14a. Dziwne, że on zawsze marzył, żeby tam pojechać.

P14b. Dziwnie, że on zawsze marzył, żeby tam pojechać.

but

P14c. On dziwnie zawsze marzył, żeby tam pojechać.

(ii) What is ADJECTIVE, CLAUSE

may be represented in Polish by

P14d. Co dziwne, to właśnie on marzył ...

which may come from

P14e. Co wydaje się dziwne, to właśnie on marzył ...

with *wydaje się* deleted.

(iii) What is ADJECTIVE is (that) CLAUSE

P14f. Co (jest) dziwne to to, że marzył aby tam pojechać.

Co jest dziwne may also appear in the final position and correspond to English *which is strange*:

P14g. To właśnie on marzył, żeby tam pojechać co $\left\{\begin{matrix}\text{jest}\\ \text{wydaje się}\end{matrix}\right\}$ dziwne.

Adjectives in the comparative degrees may also occur in clauses as groups equivalent to attitudinal disjuncts:

P14h. Co dziwniejsze, marzył, żeby tam pojechać.

. . . .

Let us now sum up the similarities and differences between English and Polish attitudinal adjectives.

1. English attitudinal adjectives co-occur with the Progressive Aspect of the Present Tense. There is no Progressive Aspect in Polish.
2. In both the languages attitudinal adjectives may occur in imperatives.
3. Both English and Polish attitudinal adjectives have certain selectional properties. They may choose Agents, Objectives and Experiencers as their arguments.
4. In Polish and in English attitudinal adjectives may be two- or three-place predicates.
5. As far as the term "subject" referring to underlying structures is concerned, there are two theories discussing the direction of the derivation of persona and impersonal constructions in English. In Polish P. S. Rosenbaum's theory is more applicable: personal constructions are derived from impersonal ones.

6. In both the languages constructions resulting from the application of Subject Raising transformation are fairly common.
7. The order of priority for subjectivalization in the case of attitudinal adjectives is O, A in English. In Polish it is A, O since the impersonal constructions are not so commonly used, as they are in English.
8. In both the languages attitudinal adjectives form two groups of which one can occur in personal constructions while the other occurs only in impersonal constructions.
9. There are only subsets of the set of attitudinal adjectives which permit the formation of adverbs in both the languages.

REFERENCES

Fillmore, Ch. 1968. "The case for case". in: *Universals in linguistic theory*. Bach, E. and Harms, R. T., (eds). New York: Holt, Rinehart and Winston.

Greenbaum, S. 1969. *Studies in English adverbial usage*. Coral Gables, Florida: University of Miami Press.

König, E. 1970. *Adjectival constructions in English and German. A contrastive analysis.* Heidelberg: Julius Groos Verlag.

Langendoen, T. 1969. *The study of syntax. The generative-transformational approach to the structure of American English.* New York: Holt, Rinehart and Winston.

Rosenbaum, P. S. 1967. *The grammar of English predicate complement constructions.* Cambridge, Massachussetts: M.I.T. Press.

ENGLISH AND POLISH VERB PHRASES OF THE STRUCTURE V+ADJ

MONIKA OSTASZEWSKA

Warsaw University

Both in English and in Polish adjectives[1] can be used either attributively or predicatively, for instance:

Eng. a big table, The table is big.
Pol. duży stół, Stół jest duży.[2]

Among sentences of the structure

$$NP+V+Adj$$

the verbal element is the appropriate form of BE in most cases. However, there are many instances of such sentences in which $V \neq BE$.

In this paper, a tentative analysis of certain types of such sentences is attempted, along with a suggested classification of these types into several groups. Since more types of Verb Phrases of this structure appear in English, the division would apply to English sentences in all cases, whereas in Polish in some instances equivalents must be looked for among other sentence structures. For the same reason the English language will be given first here, since no Polish sentence type not having an equivalent in an English adjectival sentence — that is, a sentence in which the adjective is used predicatively — has been observed.[3]

---

[1] For our purposes an adjective can be very informally defined as a word symbolizing "some attribute or quality possessed by the person or thing that a particular noun symbolizes" (Thomas 1965 : 151). See also S. Jodłowski (1971 : 153). No better definition serving our purposes has been found.

[2] Discussion of the problem: which adjectives in both languages can be used only in one of these positions has been omitted here. See Bolinger (1967) and also Smólski (1969).

[3] In this paper, English phrases with preparatory *it* as well as English and Polish sentences with passive verb forms have been omitted. Only adjectives in the positive degree have been considered.

1. Grammarians do not agree on what syntactic value should be attached to the constituents of VPs in such sentences, nor according to what criteria such VPs should be classified.

As far as the English language is concerned, a variety of terms, suggesting various approaches, have been used.

O. Jespersen (1927: 355–404) distinguishes two basic kinds of predicatives (in our discussion we shall only consider predicative combinations consisting of a verb and an adjective, not for instance a noun etc.): predicatives of being and predicatives of becoming. Each of these groups can in turn be divided into quasi-predicatives and (real) predicatives, the basis for such division being the fact that sentences with real predicatives are wholly or nearly complete without the quasi-predicatives, whereas sentences with real predicatives are not complete without the predicatives, for instance: Predicatives of Being a) quasi-predicative: She *married young*; b) predicative: *She looks pale*; Predicatives of Becoming a) quasi-predicative: *She would grow up pretty*; b) predicative: *She turned pale.*[4]

T. Grzebieniowski (1964: 189 - 190) in a way follows Jespersen in his description, this time dividing VPs into three categories on the basis of the function played by the verbs: 1) VPs with linking verbs with their original meaning preserved: *He fell silent* (?); 2) VPs in which the predicate is both complemented and expanded: *He looks healthy*; 3) VPs in which the predicate is expanded: *He lived poor and he died poor*.

A. Reszkiewicz (1963: 7, 34, and 38) in defining Main Sentence Elements in Modern English makes use of two basic concepts: connotation and determination. Among twelve main sentence elements he discusses two particular types of adjectival PVs and applies the terms Secondary Subject Complement (P_2) to Adjs in sentences like *He seems/looks happy*, and Secondary Predicative Appositive (A_2) to Adjs in sentences like *She married young*.

A. S. Hornby (1956: 68 - 69 and 119 - 124) only discusses the so-called Subject x Verb x Subject Complement combinations (*He seemed much older*) and he distinguishes an entire group of VPs in which V=Inchoative Verb (*The leaves are turning brown*).

N. W. Francis (1958: 343 - 346 and 318) distinguishes VPs in which Adjectives complement verbs (referred to as Linking Verbs), as in *The man seemed hungry*, *The weather turned cold*, and VPs in which Adjs modify verbs, as in *The show fell flat*, *The children ran wild*.

R. H. Zandvoort (1962: 197 - 198) talks only about predicative adjectives: *She kept very quiet*. *The dog went mad*.

M. Ganshina and N. Vasilevskaya (1953: 278 - 281) divide the whole bulk of such VPs into two major groups: VPs with linking verbs and VPs with Double Predicates. In the first group there are three subgroups, i.e., linking verbs of being, as in *He looked pale*, linking verbs of remaining (in a certain state), as in *He remained pale*, and modal linking verbs, as in *He seemed pale*. Double Predicatives can be found in sentences such as *The moon rose red*.

---

[4] In *Analytic Syntax* predicatives of becoming are called Predicatives of Result, i. e., treated like "objects of result" (Jespersen 1937 : 38 - 39).

O. Thomas (1965: 123 - 125) discusses only VPs with Copulative Verbs as one of the four possible types of verbs, i.e., transitive, intransitive, BE and copulative distinguishing in turn five possible groups: 1) verbs of the senses (*smell, taste, feel, ...*), 2) verbs of appearance (*appear, look, seem, ...*), 3) verbs of action (*grow, turn, ...*), 4) *become* and 5) *stay* and *remain*.

This short survey is representative in that all grammarians (among those who consider English VPs of the structure V+Adj) notice the difference between VPs such as in (1) *She seemed young* and in (2) *She married young*. Yet they fail to differentiate among the various phrase types within (1). If a classification is attempted, it is only a simple grouping of VPs according to verbs appearing in those VPs.

As far as the Polish language is concerned, the traditional approach seems to be favored by Z. Klemensiewicz (1939: 34 and 65) who in sentences such as *Pogoda zrobiła się ładna* claims the presence of *łącznik* (copula) and *orzecznik* (predicative), and in sentences such as *Wracam do domu ponury* the presence of verb and *przydawka orzekająca* (predicative attribute), or, using somewhat different terminology, *przydawka okolicznikowa* (adverbal attribute) (Doroszewski and Wieczorkiewicz 1961: 200).

K. Pisarkowa (1965) represents a totally different point of view, namely that the function of Adjs in VPs of the type discussed here has never been correctly defined and understood, since all the grammarians so far have failed to notice the completely unique internal structure of such clauses, in which Adjs do not function as any of the traditionally accepted sentence parts, i.e., subject, verb, object, modifier or adverbial. She distinguishes three main types of copula in such sentences: *łącznik klasyczny* (classical copula), as *stawać się*, *łącznik nieklasyczny* (non-classical copula), as *wydawać się*, and *pseudo-łącznik* (pseudo-copula), as *wracać, leżeć*. In sentences with copulas other than classical copulas adjectives do not function as predicate adjectives. K. Pisarkowa invents the term *określenie predykatywne* (predicative modifier) to account for adjectives (or NPs which may occupy the same syntactic position) appearings in such VPs and she claims the existence of a predicative non-clause-producing relationship, as secondary to the main clause-producing relationship of Subject and Verb, in sentences of the structure NP+V+Adj, where V is different from any classical copula.

Although this study reveals many interesting points about predicative constructions in Polish, it does not discuss in greater detail the differences among the various types of adjectival VPs with pseudo-copulas.

2. In this paper several general assumptions have been made to allow for the tentative classification of English and Polish sentences of the structure NP+V+Adj, where V is different from BE:

(1) Sentences of the structure NP+BE+Adj can be perceived as "neutral" or "unmarked", since they only carry the information that there is an NP such that this NP can be modified by an Adj. Any sentence of the structure NP+V+Adj, where V=BE is "coloured" or "marked" in that it carries some additional information concerning semantic and syntactic relations among these three elements in a sentence.

(2) Among all sentences of the structure discussed here two major types can be distinguished:

A. sentences which are basically one-predicate sentences.

B. sentences which in fact are two predicate sentences. They can always be paraphrased as sentences consisting of two clauses, one of them of the structure NP+BE+Adj or NP+BECOME+Adj.

(3) Any new information mentioned in (1) can be best accounted for in terms of the ways in which either sentences of (2) A are related to some contextual point of reference or clauses of (2) B are related to each other.

Since different sets of criteria have to be employed to account for one-predicate sentences and two-predicate sentences these two major groups will be discussed separately.

2.1. One-predicate sentences

Group I Type: Eng. She grew suspicious.

Pol. (Ona) zrobiła się podejrzliwa.

The only additional information — that is, different from the information that there is an NP such that this NP can be modified by an Adj — to be found in such sentences is that at some point in the past, present or future, referred to in the context, NP+BECOME+Adj, and that in the period prior to this point of reference NP+NOT BE+Adj. To J. Lyons (1968: 397) such sentences are instances of "a more general aspectual opposition which might be called static and dynamic". Thus, BE sentences are rendered as static and BECOME sentences as dynamic.

Examples both in English and in Polish are numerous. What is more interesting is the fact that while in both languages in some cases the choice either of the construction V_{become}+Adj (for instance Eng. *to grow/become red*, Pol. *zrobić się czerwonym*) or V=(BECOME+Adj) (for instance Eng. *to redden*, Pol. *poczerwienieć*) is possible, the English language prefers the adjectival construction, and the Polish language chooses its verbal counterpart. The choice often depends on style, for instance: Pol. *Posmutniał* but *Zrobił się (jakiś) smutny i zdenerwowany.*

The variety of verbs to be used in such sentences is also much greater in English (*grow, become. turn, get, come, go, fall, run, wear*) whereas in Polish only a few verbs are available (*stawać się, robić się*, and *stać się*). It must be remembered that selectional restrictions play an important part in these sentences. That applies mainly to English VPs, but even in English in some instances there is the possible choice of two or more verbs:

Eng. She became (grew, got) suspicious.

Summing up, we may say that the following list of equivalents in both languages can be suggested:

(1) V_{become}+Adj only
Eng. She grew suspicious.
Pol. (Ona) zrobiła się podejrzliwa.

(2) V_{become}+Adj/V=(BECOME+Adj)
Eng. The ink turns black when it dries.
The ink blackens when it dries.
Pol. Atrament robi się czarny, gdy schnie.
Atrament czernieje, gdy schnie.

(3) V=(BECOME+Adj) only
Eng. Fruit goes rotten/rots in hot weather.
Pol. Owoce psują się w czasie upału.

Group II Type: Eng. He remains poor.
Pol. (Jak był głupi, tak i) pozostał głupi.

The only additional information to be found in sentences of this type is that at some point in the past, present or future, referred to in the context, NP+CONTINUE TO BE+Adj, and that in the period prior to this moment of reference NP+BE+Adj.

Perphas some additional information can be obtained here, namely that from the speaker's point of view there are reasons to believe that at the moment of reference NP+MIGHT NOT BE+Adj for instance: *Everything changed but she remained poor* (although there were reasons to believe that since all the other things, changed, her condition would change as well). Otherwise, if not for this underlying assumption, why not use the "neutral" or "unmarked" construction NP+BE+Adj?

Examples are far less numerous than in the previous group. In English only four verbs fit the pattern: *remain, stay, keep* and perhaps *continue*. In Polish only two such verbs have been well studied, i.e. *pozostawać/pozostać*; however, a different construction is generally preferred: NP+BE+Adverb+Adj, where Adverb: *nadal, ciągle*, for instance:

Eng. He (still) remains poor.
Pol. (On) jest nadal biedny/ubogi.

Other Polish equivalents of such English sentences are also possible. Some English sentences of the structure NP+BE+Adj have as their most frequent equivalents Polish sentences of the structure NP+V and the same applies to corresponding constructions with *stay* and *remain*, for instance:

Eng. She remained silent.
Pol. (Ona) nadal milczała.

Summing up we may say that these two types of sentences differ from BE sentences only in one respect: ATTRIBUTE is perceived as a feature of marked duration, i.e. it can either start being an NP's feature, or it can continue being an NP's feature. Although syntactically the sentence pattern remains unchanged, a different set of verbs has to be used. Actually, these verbs are only dynamic variants of BE.

In all such sentences the presence of an adjective is obligatory.[5]

2.2. Two-predicate sentences

Such sentences must be analysed in terms of the relationship between two clauses appearing in the deep structure;

(1) all such sentences must be analysed as consisting in fact of two clauses: VERB clauses: VERB clause and ADJECTIVE clause.

(2) the VERB clause can have either the structure:
A. NP+V+NP/IT or
B. NP+V

(3) the ADJECTIVE clause can have either the structure:
A. NP+BE+Adj or
B. NP+BECOME+Adj

(4) in some sentences analysed into verb clause of the structure NP+V+NP/IT and ADJECTIVE clause different NPs appear as subjects of the two clauses. In other sentences the same NP appears as subjects.

(5) in all sentences with two different NPs as subjects of the clauses, VERB clause verbs differ from verbs appearing in the surface structure of the sentences.

(6) in all sentences analysed into VERB clause of the structure NP++V+NP/IT and ADJECTIVE clause the VERB clause NP must be marked as "human"/"animal".

---

[5] Because of the limited scope of the paper discussion of the problem which of the traditional parts of speech can occupy this syntactic position has been omitted.

As for optional as opposed to obligatory appearance of the third sentence element (besides NP and V) in such sentences, see O. Jespersen (1927 : 358), A. Reszkiewicz (1963: 34 and 38) and K. Pisarkowa (1965 : 98).

(7) all the sentences of (6) have the obligatory structure $NP+V+Adj$; in other sentences the presence of Adj is optional.

Group III Type: Eng. He plays dead.
Pol. (On) udaje nieżywego.

Structure:

$$NP_1+V+IT=NP_1+BE+Adj$$

Description:

(1) In both clauses, the same NP appears as subjects.

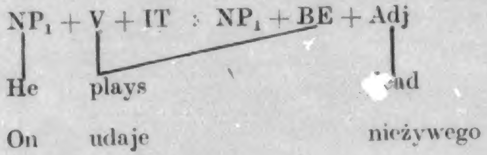
(2) The NP must be marked as "human"/"animal."

(3) Both clauses have the same temporal conditions.

(4) The same verb appears in the VERB clause, as in the surface structure of the sentence:

He plays ("IT") that he is dead.
On udaje ("TO"), że jest nieżywy.

In order to account for the surface structure of the sentence, one of the identical NPs is deleted, "IT" is deleted, and any function that can be played by BE is taken over by the V. Therefore, we get:



English verbs to appear in such sentences are *play*, *sham* and *feel*, while in Polish we find, for instance, *udawać*, *pozować* (*na*), *uważać* (*się*) (*za*), *czuć* (*się*) etc., in such constructions.

But another problem arises: Polish *się* may suggest that these sentences are actually equal to sentences of quite a different surface structure, i.e., NP_1+V+NP_2+Adj where the second NP is a reflexive pronoun corresponding to the first NP, as in Eng. *He considers/counts himself unlucky*.

Therefore, the only Polish sentences in which there is no trace of the deleted NP in the surface structure are sentences with *udawać* and *pozować*: Pol. *On udaje nięszczęśliwego/pozuje na naiwnego.*

Since Polish examples seem more numerous here, the English equivalents must be looked for. On the whole, in English we either get equivalent adjectival constructions, for instance:

Pol. (On) czuje się nieszczęśliwy.
Eng. He feels miserable.

or the already mentioned constructions with reflexive pronoun preserved in the surface structure, for instance:

Pol. (On) uważa się za bogatego.
Eng. He considers himself rich.

or sentences of the structure of the paraphrase, for instance:

Pol. (On) udaje niewinnego.
Eng. He pretends (that) he is innocent/He pretends to be innocent.

Two other interesting points should be noted:

(1) It has already been decided that in such sentences the presence of Adj is obligatory — and yet it is possible to say in Polish: *(On) udaje.* But then, it seems, the verb *udawać* is used in a slightly different meaning (something like "He is not serious, he does not mean it"), which corresponds exactly to the English verb pretend, as in *You are only pretending* (but compare Eng. **He feels.*, Pol. **(On) czuje się.*).

(2) One special type of English sentences with feel, i.e., certain sentences referring to someone's physical experiences or emotions, such as *I fell cold, I feel sad* (although the last sentence might also be translated as *Czuję się smutny*) always have as their Polish equivalents so-called impersonal sentences[6] *Jest mi zimno, jest mi smutno.*[7]

Group IV Type A. Eng. The man looked hungry.
He seemed pale.
Pol. Mężczyzna wyglądał na głodnego.
(On) wydawał się blady.

Structure:

$$NP_1+PERCEIVE+IT \ : \ NP_2+BE+Adj$$

Description:

(1) Each clause has a different NP as a subject.
(2) The VERB clause NP must be marked as "human".
(3) Both clauses have the same temporal conditions.
(4) The verb in the VERB clause is different from the one appearing in

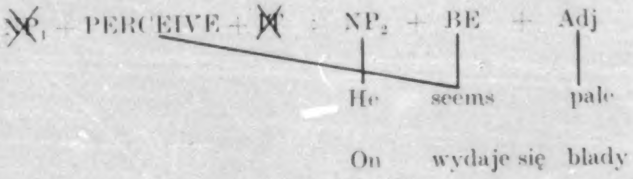
---

[6] For the concept of subjectless impersonal sentences see Z. Klemensiewicz (1969: 37).

[7] All such sentences, i.e. *I feel cold* etc., can be derived from *I feel* : *I am cold*, and sentences of the *I am cold* type are always rendered as the already mentioned impersonal sentences. Since this paper is devoted to VPs with Vs other than BE only, the type *I am cold* will not be discussed here.

the surface structure of the sentence: the surface structure verb must in fact be treated as a merger of PERCEIVE and BE.[8]

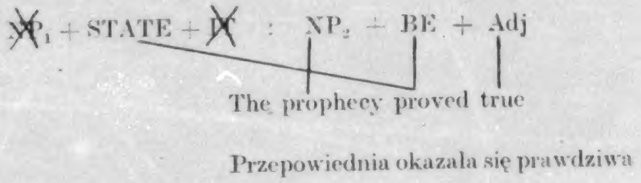
In order to account for the surface structure of the sentence, the NP of the VERB clause is deleted. "IT" is deleted and PERCEIVE and BE merge together to give the surface structure verb. Therefore we get:


NP₁ + PERCEIVE + IT : NP₂ + BE + Adj
He
seems
pale
On
wydaje się
blady

English verbs to appear in such sentences are *seem*, *look*, *appear*. In Polish we find *wydawać się*, *wyglądać na*, *uchodzić za* in such sentences.

Type B: Eng. The prophecy proved true.
Pol. Przepowiednia okazała się prawdziwa/prawdą.

Sentences with Eng. *prove*, (*appear*), Pol. *okazać się*, also belong to Group IV, since all the points discussed in connection with sentences of Group IV, Type A hold true for sentences of Type B, with one exception: another verb appears in the VERB clause, i.e., not PERCEIVE, but STATE[9]:


NP₁ + STATE + IT : NP₂ + BE + Adj
The prophecy
proved
true
Przepowiednia okazała się prawdziwa

Group V Type: Eng. Roses smell sweet.
You look beautiful.
Your question sounds interesting.
Silk feels smooth.
Sugar tastes sweet.
Pol. — (no Polish Adjectival sentences of this structure in this group)

Structure.

$$NP_1+V+NP_2 \ : \ NP_2+BE+Adj$$

---

[8] These are semantic approximations which are not entirely adequate.

[9] See 8.

Description:

(1) Each clause has a different NP as a subject.

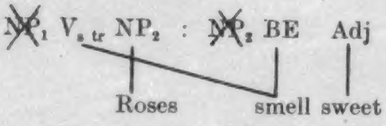
(2) The NP_1 of the VERB clause must be marked as "human"/"animal".

(3) Both clauses have the same temporal conditions.

(4) The verb in the VERB clause is different from the verb appearing in the surface structure of the sentence in that it is the transitive counterpart of the corresponding intransitive verb of the senses:

smell$_1$ (intransitive) → smell$_2$ (transitive)
look[10] ,, → see ,,
sound ,, → hear ,,
feel$_1$,, → feel$_2$,,
taste$_1$,, → taste$_2$,,

In order to account for the surface structure of these sentences, the NP of the VERB clause is deleted; one of the two identical NPs is deleted and the remaining NP becomes the surface subject of the sentence. Any function that can be played by BE is taken over by the transitive V of the senses, which then becomes the intransitive V of the senses. Therefore, we get:



When compared to BE sentences, they differ in that the additional information they convey is which of the five human/animal senses has been employed to obtain the knowledge of NP+BE+Adj. This should not be taken literally, since for instance *The sentence sounds interesting* does not necessarily mean that the sentence has actually been uttered or heard.

In Polish, whenever a corresponding intransitive verb of the senses is available (i.e. *pachnieć, wyglądać, brzmieć*) English sentences are rendered as sentences of the structure NP+V+Adverb, for instance:

Pol. Róże pachną słodko.
Wyglądasz pięknie.
Pańskie pytanie brzmi interesująco.

Those adverbs are probably those manner adverbials which can be traced back to descriptive adjectives in a derivation (cf. Thomas 1965: 169 and 174).

Otherwise, when no equivalent intransitive verb of the senses is available, equivalent Polish sentences have the surface structure NP+BE+Adj+w+N, for instance:

---

[10] *Feel* and *look* of this group are different from *feel* and *look* of Groups III and IV respectively.

Pol. Jedwab jest gładki w dotyku.
Cukier jest słodki w smaku.

NS must be treated as Nouns generated from corresponding transitive verbs of the senses.

Ending our discussion of sentences of Groups III, IV, and V, we must again point out that the presence of adjectives in all these sentences is obligatory.

In the remaining Groups VI and VII, the presence of adjectives is optional.

Group VI Type: Eng. He came (home) sick.
Pol. (On) wrócił chory.

Structure:

$$NP_1 + V \quad \text{(and)} \quad NP_1 + BE + Adj$$

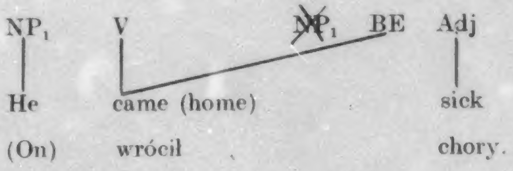
Description:

(1) The same NP appears as subjects of these two clauses.

(2) Both clauses have the same temporal conditions.

(3) The same verb appears in the VERB clause as in the surface structure of the sentence: it can be practically any verb of action or state.

In order to account for the surface structure of the sentence, one of the two identical NPs is deleted and the remaining NP becomes the surface structure of the sentence. Any function that can be played by BE is taken over by the V. Therefore, we get:



Such sentences differ greatly from BE sentences in that apart from informing that NP+BE+Adj, they also supply information as to what NP is doing or what is happening to NP.

In Polish, some sentences of this type are rendered by sentences with adjectives only:

Eng. He came (home) sick.
Pol. (On) wrócił (do domu) chory.

some by sentences with either adjectives or adverbs:

Eng. He sat motionless.
Pol. (On) siedział nieruchomy/nieruchomo (or even *bez ruchu*);

and some by sentences with adverbs only:

Eng. She died young.
Pol. (Ona) umarła młodo.

It seems that any adverb appearing here may be traced back to a descriptive adjective in a derivation[11].

Group VII Type: Eng. The fire has burnt low.
She will grow up pretty.
Pol. — (no Polish adjectival sentence of this structure in this group)

Structure:

$$NP_1 + V \quad \text{(so that)} \quad NP_1 + BECOME + Adj$$

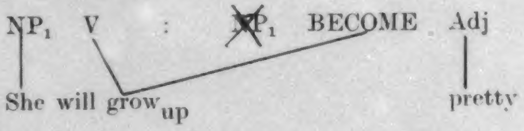
Description:

(1) The same NP appears as subjects of these two clauses.

(2) The time factor is important here: the VERB clause action begins at a moment earlier than that at which NP+BECOME+Adj. Thus, the VERB clauses are "causative" in that such sentences mean as much as: NP+BECOME+Adj+by+V-ing, for instance *The fire has become low by burning* (cf. Jespersen 1927: 388).

(3) The same verb appears in the VERB clause as in the surface structure of the sentence. It is one of the limited number of verbs naming processes capable of producing changes in ATTRIBUTE of the subject, for instance *She will grow up pretty — but she is not pretty now, she is plain.*

In order to account for the surface structure of such sentences, one of the identical NPs is deleted and the remaining NP becomes the surface subject of the sentence. Any function that can be played by BECOME is taken over by the V. Therefore, we get:



---

[11] R. Grzegorczykowa (1970 : 211) distinguishes two kinds of the so-called *przydawka predykatywna* (predicative attribute) and claims that whenever this predicative attribute modifies both the subject and the verb, it can also appear as an adverb (*mieszka bezpieczny — mieszka bezpiecznie*), but when it modifies the subject only, it can never appear as an adverb (*wrócił zły/*źle*).

In Polish, such sentences are usually translated as sentences of the surface structure NP+V(=BECOME+Adj) +Pr. Participle (of the V equivalent to the Eng. V), for instance:

Eng. The fire has burnt low.
Pol. Ogień obniżył się/zmniejszył się płonąc.

But there are cases in which a Polish adjectival equivalent of the English adjective appears in the translation, namely when the Polish adjective is one of the constituents of an NP occupying the corresponding position in the Polish sentence, as Adjective alone does in the English sentence, for instance:

Eng. She will grow up pretty.
Pol. /Ona/ wyrośnie na ładną dziewczynę.

3. Concluding remarks

Among English and Polish sentences of the structure NP+V+Adj, where V≠BE, two major groups of sentences can be distinguished on the basis of these sentences being analysed either as one- or two-predicate sentences.

The one-predicate sentences can in turn be analysed in terms of the relationship between the sentences themselves and some contextual point of reference. On the other hand the two-predicate sentences can be analysed in terms of the way in which the two embedded clauses are related.

Altogether, seven different types of sentences have been distinguished. Sentences of Group V and Group VI appear only in English. The remaining five sentence types appear in both languages, although equivalents must sometimes be looked for among other constructions different from the V+Adj pattern. Since these equivalents are to be found among adverbs and verbs as well (and perhaps also among nouns), it seems that the feature ATTRIBUTE must be considered not as an inherent feature of adjectives only, but of those other parts of speech as well.

REFERENCES

Bolinger, D. 1967. "Adjectives in English: attribution and predication". *Lingua 18*. 1. 1 - 34.

Doroszewski, W. and B. Wieczorkiewicz. 1961. *Gramatyka opisowa języka polskiego z ćwiczeniami*. 2nd ed. Vol. II. PZWS: Warszawa.

Fillmore, Ch. J. 1968. "The case for case" in *Universals in linguistic theory*. Ed. by E. Bach and R. Harms. 1 - 88. New York: Holt, Rinehart and Winston.

Francis, N. W. 1958. *The structure of American English*. New York: The Ronald Press Company.

Ganshina, M. and N. Vasilevskaya. 1953. *English grammar*. Moscow: Foreign Languages Publishing House.

Grzebieniowski, T. 1964. *Morfologia i składnia języka angielskiego*. Warszawa: PWN.

Grzegorczykowa, R. 1970. "Pozycja składniowa przysłówka". *Prace filologiczne XX*. 211 - 216.

Hornby, A. S. 1956. *A guide to patterns and usage in English*. Reprint of 1954. London: Oxford University Press.

Jespersen, O. 1927. *A modern English grammar on historical principles*. Part III: *Syntax*. Vol. 2 Reprinted in 1954. London: George Allen and Unwin Ltd.

Jespersen, O. 1937. *Analytic syntax*. Copenhagen: Ejnar Munksgaard.

Jacobs, R. A. and P. S. Rosenbaum. 1968. *English transformational grammar*. Waltham, Mass.: Blaisdall.

Jodłowski, S. 1971. *Studia nad częściami mowy*. Warszawa: PWN.

Klemensiewicz, Z. 1969. *Zarys składni polskiej*. 6th ed. Warszawa: PWN.

Lyons, J. 1968. *Introduction to theoretical linguistics*. Cambridge: Cambridge University Press.

Pisarkowa, K. 1965. *Predykatywność określeń w polskim zdaniu*. Wrocław: Zakład Narodowy im. Ossolińskich. PAN.

Reszkiewicz, A. 1963. *Internal structure of clauses in English*. Wrocław: Zakład Narodowy im. Ossolińskich. PAN.

Smólska, J. 1969. *Noun headed nominal groups in English and in Polish*. Unpublished doctoral dissertation, Adam Mickiewicz University, Poznań.

Thomas, O. 1965. *Transformational grammar and the teacher of English*. New York: Holt, Rinehart and Winston.

Zandvoort, R. W. 1962. *A handbook of English grammar*. 2nd ed. Fifth impression (with corrections) 1963. London: Longmans.

SYNTACTIC AMBIGUITY AND THE TEACHING OF WRITTEN ENGLISH TO ADVANCED POLISH LEARNERS

Elżbieta Muskat-Tabakowska

The Jagellonian University of Cracow

> **Reading maketh a full man, conference a ready man, and writing an exact man.**
> **(Francis Bacon)**

I. STATING THE PROBLEM

1. Definition and approach. The term 'ambiguity' with reference to natural languages can be generally defined as 'the property of sentences that they may be interpreted in more than one way and that insufficient clues are available for the intended or the optimal interpretation' (Kooij 1971: 1). The two parts of this definition clearly correspond to the two aspects of the problem: ambiguity in a natural language can be considered either an inherent property of the system or a shortcoming of language users. Taken in this first sense, ambiguity occupies a legitimate position in theoretical considerations concerning linguistic description. For example, it has become the subject of ample discussion, providing an argument for the superiority of transformational approach over Phrase Structure Grammars: certain types of ambiguous sentences whose interpretation shows that the principle of linear constituent-structure is inadequate as a means of linguistic description, are adequately explained in the framework of TG. Such a theoretical approach, i.e. the consideration of ambiguity in respect of its consequences for a linguistic description, involves several methodological assumptions. Thus, communicative (or pragmatic) aspects, such as, for instance, the effects of ambiguity on the recipients or the sender's intentions are left out of consideration and the context, if considered, is usually restricted to what is at present moment generally taken to be the maxi-

mum unit of linguistic description, i.e. the sentence (irrespective of which of the many definitions of this concept a given author might wish to accept). Consequently, what is considered is *potential* ambiguity, and the purpose of the investigation is to indicate 'the conditions under which a sentence is *potentially* ambiguous insofar as its grammatical structure is involved' (Kooij 1971: 115).

The obvious validity of such an approach for the development of linguistic investigation can hardly be questioned. Yet it proves at a closer inspection that ambiguity is such a pervasive characteristic of natural languages that there is 'no way in which words can be selected and constructed into sentences that will automatically assure a single unambiguous meaning' (Gleason 1965: 461). On the other hand, however, in most cases certain features of the linguistic and extralinguistic context of a sentence (some of them already subjects of investigation, others as yet completely unknown) make one meaning prevail so decidedly over others that the ambiguity is practically resolved and successful communication ensured. Therefore, though it is an inherent property of a natural language, ambiguity should not be valued too highly as an actual obstacle in the communication process.

But still, everyday contact with language, especially in the written medium (we shall discuss this point at some length further in this paper), provides at least some evidence that the consequence of various types of ambiguity for successful communication is not an altogether negligible question. Moreover, ambiguity is not always necessarily regarded as a deficiency of language use. A recognized artistic device, one of the basic tools of a true poet, it is believed to enrich the text and its possible interpretations. Simultaneous presence of alternative meanings in an utterance is the chief source of paranomasia — one of the resources of creative writing. This type of ambiguity differs from potential ambiguity discussed above — it is *actually* effective in a given message, either in positive or non-positive sense. Here, investigation will clearly require a different method. Pragmatics being the chief concern, one would only consider those cases in which features of the context actually fail to provide adequate clues for a univocal interpretation. In consequence, the investigation of the context (broad or narrow, as the need might be) would provide most crucial information and the supra-sentence level will necessarily become the natural level of analysis. Even though the linguistic unit to which the discussion of a given case will be ultimatlely reduced might prove to constitute a single sentence, discourse analysis will serve to single this unit out. As opposed to the case of theoretical approach, the purpose of investigation will be to find out the function of ambiguity in the process of language communication, i.e. to answer the question whether a sentence that is *potentially* ambiguous does or does not *actually* have a multiple meaning for a language user in a given context. Thus it becomes a question of stylistics, in the sense that it 'concerns all these relations among linguistic entities which are statable, or may be statable, in terms of wider spans than those which fall within the units of the sentence (Hill 1958: 406).

Such a practical approach implies going back to old considerations of ambiguity in a pragmatic context, either as a source of fallacious reasoning in logic or as a fault of rhetoric (for a detailed discussion, see Kooij 1971: 1ff), or else — in the positive sense — as a characteristic of a true literary achievement. In the non-positive sense ('insufficient clues that are available for the *intended* or the *optimal* interpretation', to quote again the second part of our definition) it will be also the approach of a language teacher.

Before we develop this point any further, however, it might be useful to consider the possible ways in which ambiguity in a natural language is manifested.

2. Types of ambiguity in natural languages. From the linguistic point of view, ambiguity is traditionally divided into two types: lexical and grammatical. Lexical ambiguity (which most writers carefully restrict to that present within what is actually said, as different from what is only implied by the sender or the recipient of the message) concerns these cases in which a syntactically unambiguous sentence becomes semantically ambiguous, due to the presence in it of at least one lexical item which has more than one sense, cf.

He enjoys wearing a *light* suit in the summer (Quoted in Katz, Postal, 1964: 15).

This last concept has been causing serious trouble, since preserving a precise distinction between homonymy and polysemy on the one hand and mere vagueness or generality — a rule rather than an exception in natural languages — on the other, proved extremely difficult. Also, more than with other types of ambiguity, finding reasons for the impossibility of unanimous interpretation in such cases seems to belong to the domain of philosophical rather than purely linguistic investigation. Possible explanations would be of intersemiotic nature, more directly concerning the problem of substantive universals, and they might suffer rather than gain from any attempts to reduce the problem down to the scope of a chosen single language or to a contrastive analysis of a pair of languages only.

It is for such reasons that lexical ambiguity has not been amply discussed in theoretical works on the subject and that authors of language textbooks do not consider it a significant teaching problem.

To grammatical ambiguity, on the other hand, both theoreticians of language and applied linguists have paid much more attention. Structuralists considered it to be chiefly the result of difference of constituent structure (cf. the classical example 'Old men and women'); after the concept of a non-linear constituent-structure has been developed, also the consequence of multiple distributional classification of elements for grammatical ambiguity were recognized (cf., also classical 'They can fish' Lyons 1969: 212). The development of Generative Transformational Grammars accounts for the explanation of grammatical ambiguity as a possible result of transformational derivation of a given surface structure (cf. another classic, 'Flying planes can be dangerous'). Further in this paper, I use the term *syntactic ambiguity*, as all types of grammatical ambiguity are a property of syntax. A more detailed discussion of these, as well as of the problem of interrelations between syntactic ambiguity and semantics, will be presented in further sections of this paper.

Most of the theoretical discussions of syntactic ambiguity have so far served the purposes of linguistic description, and as such they concerned the theory of linguistic competence rather than performance. Chomsky, for example, did not seem to consider any possibility of its practical significance for language users: 'In bringing to consciousness the triple ambiguity... we present no new information to the hearer and teach him nothing new about his language but simply arrange matters in such a way that his linguistic intuition, previously observed, becomes evident to him' (Chomsky 1965: 22). In discussing cases of ambiguity, the type/token differentiation (i.e. abstraction from unique cases of language use) is usually carefully observed and — though the fact that many ambiguities go unnoticed is generally recognized — the main factor of disambiguation is considered to be the linguistic context.

This position seems no longer tenable when it comes to the consideration of any linguistic phenomenon in the context of communication process (one of such considerations being clearly the foreign-language teaching situation). The recognition of this is found even in some of those works which are otherwise mainly theory-orientated. In this respect, Lyons' claim that sentences that are grammatically ambiguous can be semantically non-ambiguous, chiefly for pragmatic reasons, is of great importance (Lyons 1969: 214).

Recognition of the function of prosodic features in disambiguation of sentences can be considered another step on the way towards bridging the gap between the theory of language and the theory of language use, or — in Chomsky's classical terms — competence and performance. A. Hill's 'phonological syntax' (1958), a detailed analysis of linguistic structures of American English, provides numerous examples of disambiguation by means of prosody. Like other writers, Hill admits that signals present in the sound system (such as pitch or junctures) are imperfectly represented in writing by punctuation marks. The obvious consequence is that ambiguity is more frequent in the written medium than in speech, the phenomenon that is due also to some well-known factors that are traditionally enumerated as differences between spoken and written language (for a discussion, see, e.g. Rainsbury 1967). Thus, any pragmatically-orientated discussion of syntactic ambiguity should carefully observe the differentiation between the written and spoken medium.

Before we discuss the prob[illegible] of syntactic ambiguity in the context of foreign-language teaching, a short summary of the assumptions so far accepted may help to clarify our position. Thus ambiguity, an inherent property of any natural language, can be manifested, roughly, as multiplicity of meanings of single words or larger structures. It is the second type which is more naturally dealt with inside the framework of linguistic sciences. Further, linguistic ambiguity can be defined in terms of either language theory or language use. The consequence of this duality is the double possibility of approach, illustrated by means of the following diagram:

	Theoretical approach	Practical approach
1. Purpose of investigation	Contribution towards the theory of language	Contribution towards the theory of language use
2. Relation to context and situation	type-approach	token-approach
3. Level of analysis	sentence	supra-sentence
4. Level of linguistic representation of data	phonological	phonological and/or graphic

3. Syntactic ambiguity, contrastive analysis and the language teacher. The assumptions stated on the right side of the above table are more readily required in the context of foreign-language teaching. Further, it seems possible that — as in the case of other linguistic phenomena — the investigation of syntactic ambiguity could gain form a contrastive approach, though it is a common agreement that its first concern should be theoretical rather than pedagogical implications. Grammars are expected to provide formal explanations of idealized competences, i.e. 'each grammar represents a model of speaker and hearer of the language it seeks to explain' and an analysis of such idealized competences must constitute 'the very foundation of all applied studies in language teaching' (Di Pietro 1971: 21). However, there is as yet no grammatical description that would fulfil all requirements cited in the literature on TG (i.e. completeness, accuracy, expliciteness and simplicity). While there have been some attempts at postulating larger units of discourse, it is still the sentence which remains the maximum workable unit. Linguistics has begun to describe the sentence generating rules of languages but has not yet told us much about context or the structure of the entire speech act. All this does not mean, however, that the applied linguist can well afford to wait till theoretical investigation provides the complete background for the development of a performance theory.

There seems to be no reason why the present findings of linguistic theory could not be used to work out some principles of practical application. Investigation directed towards such an end could provide both the necessary confirmation of the theory and some valuable insights that might promote its further development.

The starting point must be the assumption, now generally accepted, that the main purpose of language is communication. Consequently the purpose of all foreign-language teaching must be considered communication in the language taught, irrespective of the particular language skill that happens to be the focus of instruction. Among these skills, the skill of writing has perhaps been the subject of most heated discussion, as far as its place in instructional programs is concerned. The moot point of traditional (grammar-translation) method, in audiolingual teaching which emphasized the ability of understanding and producing utterances, it was left till the more advanced levels of teaching or was altogether underrated. As a result, some of these programs were duly criticized 'in their lack of concern to produce literate students of foreign languages who hold their own in reading or writing scientific or literary prose' (Di Pietro 1971: 165). Any full language course must state among its objectives that the students acquire some, however restricted, competence in the written medium of the language taught; some immediate consequences, relevant for the present discussion, can be summarized as follows:

1. the ability to recognize and appreciate variations of style, such as are involved in writing 'with an implicit purpose' (i.e. literature) must be developed.

2. the ability to write 'with an explicit purpose' (i.e. expository prose) must be taught.

In such a context, the relevance of the problem of syntactic ambiguity for teaching language becomes immediately apparent. Expository prose is in fact the only kind of writing used for university purposes, its goal being report, explanation and evaluation of facts. In this type of writing the basic requirement on the form, as different from contents, is that it is understood not in the process of laborious study but through simple reading. Even though — in spite of ambiguity — the correct interpretation in most cases ultimately proves possible, the reader becomes painfully aware of the writer's incompetence.

While lexical ambiguity is seemingly less relevant, ambiguity as a property of syntax will be legitimately viewed as a teching problem of par excellence linguistic nature. Syntactic relationships being clearly meaningful, inadeqate competence in manipulating linguistic elements or lack of awareness of potential meaning of linguistic structures can significantly lessen the effectiveness of communication. Mastery of written language is an important matter and we need to know much more about how to teach it than we do now. But, in order to be able to cure the disease, one must first investigate the symptoms.

In respect to ambiguity, learners' 'receptive competence' is usually larger than 'productive competence' (for further discussion of this distinction, see Di Pietro 1971: 20): ambiguity may exist only for the recipient of the message, since the person who formulated it presumably knew which of the possible meanings he intended to convey. Thus, though grammatically correct, a text will be considered stylistically erroneous and the need for remedial procedures will become apparent. Yet, though similar to error analysis, investigation will not in general involve analysing sentences which are ungrammatical. As syntactic ambiguity is shown to belong among the problems of stylistic rather than among those of grammaticality, the concept of acceptability will often prove more useful. These distintions will become clear after the sample analysis has been presented; at this point we would like to state the hypothesis that the reasons for acual syntactic ambiguity in written English of Polish students might be much the same as those for standard linguistic errors: interference and overgeneralization and such factors as memory retention or type of instruction. Therefore, it seems profitable to carry the analysis within the framework of a contrastive study. Such an analysis, apart from its possible predictive values, can provide hypothetical explanation of three kinds:

1. syntactic ambiguity can prove to be due to interference: disambiguating factors that exist in Polish might be shown to be absent from English. Transfer from Polish to English can result in ambiguity. Teaching stylistics will use such contrasts as its starting point,

2. syntactic ambiguity in Polish and English can prove to occur on the same level of derivational history of an utterance. With languages as similar as Polish and English this can often be the case: contrasting relevant linguistic structures will provide an index of features which are actually shared. Even so, contrastive analysis will still prove instructive: clarity of style will in such cases be taught as it is taught to native speakers (in native-language teaching syntactic ambiguity in expository prose is classified as an error of style and remedial procedures involve sets of normative rules, cf., e.g., Saloni 1971, ch. V),

3. the reason for syntactic ambiguity can prove to be a combination of the two factors listed above: some features accounting for ambiguity of a given utterance will be due to transfer, others will be a shared property of the two systems. Discrimination between the two will be of obvious value for the foreign-language teacher.

II. AN INTRODUCTION TO SAMPLE ANALYSIS

As a verification of the validity of the approach postulated above for the investigation of syntactic ambiguity in written English of advanced Polish learners, I would like to present an informal analysis of an example which seems illustrative of the principles suggested. The following extract comes from a composition produced by a first year university student of English (i.e. after four years of learning the language):

(As George walked out of the school one early evening, he met his cousin Henry from Manchester.) (1)He$_1$ was very surprised to see him$_2$ because he$_3$ thought he$_4$ was in Wales and in his$_5$ last letter he$_6$ had not written about his$_7$ journey to London.

The remaining part of the text is irrelevant for the present discussion. I propose that the analysis concentrate on the sentence I[1]. It is postulated that its surface realization can be reduced to the following seven sentences (the PRO forms correspond to consecutive occurrences of the [+Pron] forms in I. The integers in I. correspond to these in I.1 - I.7):

I.1 SOMETHING (+S=I.2) surprised SOMEBODY$_1$ very much
I.2 SOMEBODY$_1$ saw SOMEBODY$_2$
I.3 SOMEBODY$_3$ thought SOMETHING (+S=I.4)
I.4 SOMEBODY$_4$ was in Wales
I.5 SOMEBODY$_5$ wrote a letter
I.6 SOMEBODY$_6$ wrote SOMETHING (+S=I.7)
I.7 SOMEBODY$_7$ planned a journey to London[2]

In view of multiple pronominalization[3], I. is syntactically many ways ambiguous. Yet, in the context of the previous sentence (quoted in brackets), it can be partially disambiguated, due to the information provided by syntactic and semantic projection rules of English. Thus, though all [+Pron] forms in I. 'comprise features like [+Animate, +Human, +Male and so on] but lack full semantic specification underlying Nouns' (Di Pietro 1971: 97), SOMEBODY$_1$ in I.1 and I.2 is identical with *George* through 'a semantic feature specification of the *name* element' (Di Pietro 1971: 97), being anaphoric to the referent mentioned in the bracketed sentence (cf. Gleason 1968: 57). Thus we get

I.1a SOMETHING (+S=I.2) surprised George very much
I.2a George saw SOMEBODY$_2$

SOMEBODY$_2$ in I.2a is not identical with *George*, as sameness of reference would require reflexivization of the second NP:

I.2b *George saw George (if $NP_1=NP_2$)
I.2c George saw himself (if $NP_1=NP_2$)

---

[1] For the sake of the present discussion, I follow the working definition of sentence quoted in Kooij (1971 : 5): 'any sequence of linguistic elements to which at least one grammatical structure can be assigned and which has at least one meaning'.

[2] The ambiguity inherent in the expressions 'his letter' and 'his journey' is resolved by the context. The Genitive Determiner *his* is considered by the present author to be derived by pronominalizing the sentences 'Henry wrote a letter' and 'Henry planned a journey', with subsequent nominalization. (cf. Thomas 1965 : 199). Though different from some analyses of genitival constructions (cf., e.g. Nagucka 1971), such an explanation seems more in accordance with the data discussed.

[3] In view of earlier assumptions, (Cf. Note 2), the categorial distinction between pronouns and genitives is not observed in the following discussion.

Hence, SOMEBODY$_2$ in I.2a must be identified as the second participant in the discourse (for definitions of terms, see Gleason 1968), i.e., *Henry*:

I.2d George saw Henry

SOMEBODY$_3$ in I.3 is specified as *George*, as the rules of semantic projection exclude other possibilities, permitted by syntax. Various operations transform I.1a, I.2d and I.3 into

I.8 (George saw Henry) surprised George very much because George thought SOMETHING,

cf.

I.8a *(George saw Henry) surprised George very much because Henry thought SOMETHING[4]

Similar rules require sameness of reference of SOMEBODY$_5$ in I.5 and SOMEBODY$_6$ in I.6, as

I.9 In Henry's last letter Henry had not written SOMETHING

is grammatical, while

I.9a *In Henry's last letter George had not written SOMETHING

is not. Yet, apart form 'common sense' which 'might cover any combination of linguistic and non-linguistic clues' (Gleason 1968: 57), no grammatical rules prevent the interpretation

I.9b In George's last letter George had not written SOMETHING

Semantic specification of SOMEBODY$_4$ in I.4 and SOMEBODY$_7$ in I.7 cannot be settled either: though improbable, the embedding of I.4 in I.3

I.10 George thought George was in Wales

is still grammatical, cf., eg.:

George was surprised to see himself still there as *he thought he was in Wales*

Similarly, semantic specification of the result of embedding I.7 in I.6 can produce

I.11a Henry had not written about George's journey to London
I.11b George had not written about Henry's journey to London
I.11c Henry had not written about Henry's journey to London
I.11d George had not written about George's journey to London,

which are all grammatical.

Thus, grammatical rules permit the following interpretations of I:

Ia George$_1$ was very surprised to see Henry$_2$ because George$_3$ thought

---

[4] For simplicity, I ignore the character of semantic features of verbs *surprise* and *think* that account for sameness of NP's in I.8.

$\left\{\begin{matrix}\text{Henry}\\ \text{George}_4\end{matrix}\right\}$ was in Wales and in $\left\{\begin{matrix}\text{Henry's}\\ \text{George's}_5\end{matrix}\right\}$ last letter $\left\{\begin{matrix}\text{Henry}\\ \text{George}_6\end{matrix}\right\}$ had not written about $\left\{\begin{matrix}\text{Henry's}\\ \text{George's}_7\end{matrix}\right\}$ journey to London.

with $NP_5=NP_6$.

In consequence, I. is theoretically 8 ways ambiguous and some — still unspecified — features of the context, as well as the reader's 'common sense', are the only disambiguating factors. However, though finally successful, this disambiguation is a tiresome process, and — in spite of its grammaticalness — I. is considered unacceptable. Accordingly, it will be classified as a case of an error of style which calls for remedial procedures. It is the conviction of the present author that in cases like I. contrastive analysis might provide some insights that will prove helpful at finding solutions more instructive that the traditional normative rules of the type 'don't use too many pronouns in one sentence'.

To illustrate this point, let us consider the Polish equivalent of I. A congruent translation will give the following result:

II. *On$_1$ był bardzo zdziwiony gdy on$_{1a}$ go$_2$ zobaczył[5], ponieważ on$_3$ sądził, że on$_4$ jest w Walii, a w swoim$_5$ ostatnim liście on$_6$ nie pisał o swojej$_7$ podróży do Londynu.

II. is clearly ungrammatical, as transformational rules in Polish require that anaphoric pronouns in subject position preceding finite verb forms are deleted in the surface realization. The zero anaphora (for further explanation of this term, see Gleason 1968) in such cases may be explained by the fact that the [+Verb] forms comprise the same features ([+Animate, +Human, +Male, +III etc.]) as those comprised in anaphoric pronouns, making the surface realization of the latter over-redundant[6].

Thus we get

III. Był bardzo zdziwiony gdy go zobaczył, ponieważ sądził, że jest w Walii, a w swoim ostatnim liście nie pisał o swojej podróży do Londynu

The constituent sentences that comprise III. correspond (i.e. are equivalent) to I.1 - I.7 above (a possible confirmation of tacitly postulated identity of deep structures of I. and III.). We list them below for the purpose of further reference:

III.1 COŚ (+S=III.2) bardzo zdziwiło KOGOŚ$_1$

III.2 KTOŚ$_1$ zobaczył KOGOŚ$_2$

---

[5] The departure from congruence at this point is not considered immediately relevant for the present discussion.

[6] For an illuminating and detailed discussion on pronominal subjects, see Pisarkowa 1969, ch. II.

III.3 KTOŚ$_3$ sądził COŚ (+S=III.4)
III.4 KTOŚ$_4$ jest w Walii
III.5 KTOŚ$_5$ napisał list
III.6 KTOŚ$_6$ pisał COŚ (+S=III.7)
III.7 KTOŚ$_7$ planował podróż do Londynu[7]

As syntactic and semantic projection rules of Polish provide the reader with information equivalent to that provided by rules that had generated I., we get the following interpretations[8]:

III.1a COŚ (+S=III.2) bardzo zdziwiło Jerzego (cf. I.1a)
III.2a Jerzy zobaczył KOGOŚ$_2$ (cf. I.2a)
III.2b *Jerzy zobaczył Jerzego (If $NP_1=NP_2$, cf. I.2b)
III.2c Jerzy zobaczył się (If $NP_1=NP_2$, cf. I.2c)
III.2d Jerzy zobaczył Henryka (cf. I.2d)
III.8 (Jerzy zobaczył Henryka) bardzo zdziwiło Jerzego, ponieważ Jerzy sądził COŚ (cf. I.8)
III.8a *(Jerzy zobaczył Henryka) bardzo zdziwiło Jerzego, ponieważ Henryk sądził COŚ (cf. I.8a)
III.9 W ostatnim liście Henryka Henryk nie pisał CZEGOŚ (cf. III.9)

III.9a *W ostatnim liście Henryka Jerzy nie pisał CZEGOŚ (cf. III.9a)

While III.9 is grammatical and III.9a is not, like in English, no rules (apart from 'common sense') prevent the interpretation

III.9a W ostatnim liście Jerzego Jerzy nie pisał CZEGOŚ (cf. I. 9b)

Semantic specification of KTOŚ$_4$ in III.4 cannot be settled either. Though somewhat improbable

III.10 Jerzy sądził, że Jerzy jest w Walii (cf. I.10)

is still grammatical, cf., e.g.:

> Jerzy był bardzo zdziwiony, gdy ujrzał się jeszcze w Londynie, ponieważ *myślał, że jest już w Walii*

Contrary to English, however, transformational rules of Polish require that semantic specification of KTOŚ$_7$ in III.7 is realized unambiguously in relation to the author of the letter. Thus the interpretations

III.11a Henryk nie pisał o podróży Jerzego do Londynu (cf. I.11a)

III.11b Jerzy nie pisał o podróży Henryka do Londynu (cf. I.11b)

are ruled out, as non-identity of reference would require the demonstrative pronoun [+Male, +sing, +III+Gen] *on* in surface realization:

---

[7] Cf. Notes 2. and 3. above.

[8] To avoid repetition, we only list components of III., equivalent and congruent to the constituent sentences of I.

III.11c $\left\{\begin{matrix}\text{Henryk}\\ \text{Jerzy}\end{matrix}\right\}$ nie pisał o *jego* podróży do Londynu[9]

Sameness of reference requires the possesive pronoun *swój*[10]. Thus the only possible interpretations of the surface realization of III.11 are:

III.11d Henryk nie pisał o podróży Henryka do Londynu (cf. I.11c)

III.11e Jerzy nie pisał o podróży Jerzego do Londynu (cf. I.11d)

In consequence, grammatical rules of Polish permit the following interpretations of III:

III.a Jerzy$_1$ był bardzo zdziwiony, gdy Jerzy$_{1a}$ zobaczył Henryka$_2$, ponieważ Jerzy$_3$ sądził, że $\left\{\begin{matrix}\text{Henryk}\\ \text{Jerzy}\end{matrix}\right\}_4$ jest w Walii, a w ostatnim liście $\left\{\begin{matrix}\text{Henryka}\\ \text{Jerzego}\end{matrix}\right\}_5$ $\left\{\begin{matrix}\text{Henryk}\\ \text{Jerzy}\end{matrix}\right\}_6$ nie pisał o podróży $\left\{\begin{matrix}\text{Henryka}\\ \text{Jerzego}\end{matrix}\right\}_7$ do Londynu,

with $NP_5 = NP_6 = NP_7$. Consequently. III, — even if only theoretically — is four ways ambiguous. The disambiguating factors operate on the same principles as those discussed above in relation to I. Though simpler, the process of disambiguation is still quite complicated and the sentence is felt to be stylistically 'muddled'. It must be remembered, however, that III. is an equivalent of I. which is unacceptable in English. In my search for an explanation of multiple syntactic ambiguity of I. I carried out the following experiment. I. was given to a group of 20 Polish advanced students of English (after seven years of learning) who were not previously acquainted with the original message, intended in I. The students were asked to translate the text into Polish, attempting both at a congruent rendering of the text and at exactness of expression. Out of [illegible]0, only 2 produced versions congruent to III.[11] In the remaining 18 cases, syntactic ambiguity of reference of unspecified proform in III. 4 was resolved by introducing an additional element in surface structure. The following renderings were attested:

III.b Był bardzo zdziwiony, gdy go zobaczył, ponieważ sądził że $\left[\begin{matrix}\text{a jest on}\\ \text{b ten jest}\\ \text{c kuzyn jest}\\ \text{d Henry jest}\end{matrix}\right\}$ w Walii, a w swoim ostatnim liście nie pisał o swojej podróży do Londynu.

---

[9] For the sake of simplicity, I ignore the rules of agreement.

[10] For a discussion, see Pisarkowa 1969, ch. V, also pp. 143ff.

[11] Lack of total identity was caused by irrelevant stylistic differentiation between synonyms, e.g., *myślał* v. *sądził*.

The demonstrative pronouns occurred in 12 cases (*on* — 8 times, *ten* — 4 times), other elements (i.e. repetition of *name* or its contextual synonyms), respectively, 2 and 4 times each. It may be postulated that the form most frequently attested, i.e. probably most natural for the respondents, appeared as a restriction on anaphora deletion in case of non-identical NPs. Thus

III.10a Jerzy sądził, że Henryk jest w Walii

undergoes pronominalization to produce

III.10b On sądził, że on jest w Walii.

The rule of anaphora deletion deletes the first pronoun to produce

III.10c Sądził, że on jest w Walii.

The second anaphora is retained in surface structure to serve as the disambiguating factor.[12] As this is its only function, it is permuted to the post-Predicate position:

III.10d Sądził, że jest on w Walii.

Z. Klemensiewicz gives the following explanation for this transformation in Polish: 'Jeżeli mianowicie podmiot jest wyrażony zaimkiem osobowym *ja*, *ty*, *my*, *wy* lub wskazującym *on* itd., *to*, a nie ma na sobie wyraźnego przycisku treściowego, zajmuje miejsce po orzeczeniu. Jest to zrozumiałe, ponieważ orientację co do podmiotu daje pod względem formalnym osobowa forma czasownika, pod względem faktycznym sytuacja towarzysząca wypowiedzeniu.' (Klemensiewicz 1969: 224).

Thus, the only actual syntactic ambiguity in IIIb is that involved in establishing which of the two participants had written the letter, without mentioning his plans to visit London. However, it was immediately resolved by another group of respondents (20 native speakers of Polish, selected at random) who, given IIIb (in the context of the preceding sentence) judged it to be 'correct'[13]. If we consider the fact that I. was classified as unacceptable (by a group of 5 native speakers and 20 Polish students), we can postulate the hypothesis that the crucial difference may involve the disambiguating factors, present in IIIb and absent from I. These comprise:

1. All operations that transform III.10a into III10.d and result in retaining the second anaphora (with the shift of order),
2. Selection of interpretations III.11d and III.11e (cf. p. 16 above) with subsequent selection of lexical items in pronominalization.

Their absence in English is due to, respectively:

1. The general requirement of surface realization on anaphoric pronouns,
2. Lexical neutralization in surface realization:

---

[12] Cf. the example 'wie, że on cierpi' in Pisarkowa (1969: 96), with the comment that 'tożsamość osoby wyklucza zwiększenie wyrazistości znaku od postaci zerowej do zaimkowej' (97).

[13] Some respondents suggested minor changes in wording, irrelevant in view of our chief interest.

I.11a - I.11d are all realized as

I.11 $\left\{\begin{matrix}\text{Henry}\\\text{George}\end{matrix}\right\}$ had not written about *his* journey to London,

with the [+Pron] form copying the nonspecific features of either *George* or *Henry* (i.e. [+Human, +Male, +sing. +III etc.]), while in Polish

a. III.11a and III.11b are realized as

III.11c $\left\{\begin{matrix}\text{Henryk}\\\text{Jerzy}\end{matrix}\right\}$ nie pisał o *jego* podróży do Londynu,

with the [+Pron] form copying the nonspecific features of *Jerzy* (in III.11a) or *Henryk* (in III.11b) (i.e. [+Human, +Male, +sing. +III etc.),

b. III.11d and III.11e are realized as

III.11f $\left\{\begin{matrix}\text{Henryk}\\\text{Jerzy}\end{matrix}\right\}$ nie pisał o *swojej* podróży do Londynu,

with the [+Pron] form copying the nonspecific features of the Noun which it determines (i.e. number, gender, case).[14]

Apart from any attempt at formulization (taxonomic or operational) of these rules, production of I. by a Polish learner can be hypothetically explained as due to interlingual transfer: factors of syntactic disambiguation in Polish, rendered by their English surface structure equivalents, simply *do not work*, which the learner probably just does not realize.

Obviously, ample research is needed before such an assumption acquires any general value, but the discussion presented above seems to justify the following postulates:

1. syntactic ambiguity, as a possible source of stylistic errors, can be considered a legitimate part of error analysis. It is classified as an error when it becomes an obstacle in language communication, and as language communication involves the supra-sentence level, it will often be manifested only in the supra-sentence context. Therefore, analysis of syntactic ambiguity will often imply the need for discourse analysis.

2. In foreign-language teaching, syntactic ambiguity as an error of style can be investigated in the context of error analysis in general, i.e. explanation can be looked for among phenomena which concern transfer and other generally recognized factors. But a *stylistic* error is by definition different from what is usually called 'linguistic errors' — it occurs in sentences which are *unacceptable* but not *ungrammatical*. Therefore, the analysis will concern performance rather than competence and would use the actual surface struc-

---

[14] Any attempt at formulizing this rule would largely exceed the scope of the present discussion.

ture as the starting point for investigation. As shown in the above sample, a theory of language ('grammar') will be found the necessary preliminary for explanation, but the 'level of delicacy', to use M. A. K. Halliday's term, will be dictated by practical needs. In other words, theoretical investigation would reach as 'deep' as actually required in a particular case. It is perphaps for this reason that contrastive analysis, aimed at providing pedagogical implications for language teaching, finds it difficult to establish universal procedures to evaluate methods imposed by particular language theories.

3. In view of the necessity to consider the (linguistic) context in which a syntactically ambiguous sentence operates, the analysis will be rather token- than type-orientated. Thus, in relation to I. above, the ambiguity is also due to the coincidental neutralization of non-specific features: the participants in the discourse analysed are both [+Human, +Male, +sing., +III etc.]. When rules of syntactic relationship of reference, or discourse coherence, are taught, such coincidents must be paid particular attention.

4. Discussions like the one presented above can supply both the linguist and the teacher with some valuable insights concerning the two languages that are being compared. For instance, in respect to I. contrastive analysis shows that such intuitive feelings as that a higher extent of syntactic ambiguity in English, when compared to Polish, is due to the reduced inflectional system of the former language, can often prove misleading or at least unsatisfactory. In view of such hypotheses as the one presented above, it is difficult to apply to foreign-language teaching situations Chomsky's statement that realization of ambiguity presents 'no information to the hearer and teaches him nothing new about his language' (cf. p. 355 above). The learner will obviously gain from being shown the relevant contrast; moreover, teaching stylistics should cover such phenomena as disambiguating factors in English. To relate this to our sample text, it might be useful to quote the correction of I., provided by a native speaker:

I.a He was very surprised to see Henry who, he thought, was in Wales because in his last letter he had not written about coming to London

The disambiguation comprises the following factors[15]:

1. Restoring the semantically specified [+Noun — Pron] form (cf. I.2d),

2. Replacing the nominalization (cf. I.3) with relativization, plus an appositive inserted sentence,

3. Change of lexical elements, i.e. replacing the Noun *journey* with the Action Nominal *coming*,

4. Deletion of Genitival Determiner (cf. I.7) to imply sameness of reference.

It is realized that both formulization and generalization of the above rules will require a great amount of thorough research; the only purpose of the informal analysis as it was presented in this paper was to signal the problem and to suggest some possible implications concerning the search for a solution.

---

[15] Listed informally.

REFERENCES

Bach, E. 1966. *An introduction to transformational grammars*. New York: Holt, Rinehart and Winston.

Chomsky, N. 1965. *Aspects of the theory of syntax*. Cambridge, Mass: M.I.T.

Di Pietro, R. J. 1971. *Language structures in contrast*. Rowley, Mass: Newbury House Publishers.

Francis, N. W. 1958. *The structure of American English*. New York: The Ronald Press Company.

Gleason, H. A., Jr. 1965. *Linguistics and English grammar*. New York: Holt, Rinehart and Winston.

— 1968. "Contrastive analysis in discourse structure". *Monograph series on languages and linguistics, 19th annual round table meeting*. Ed. by James E. Alatis. 39 - 64. Washington D. C.: Georgetown University Press.

Hill, A. A. 1958. *Introduction to linguistic structures*. New York: Harcourt, Brace and World Co.

Katz, J. J., Postal, P. M. 1964. *An integrated theory of linguistic description*. Cambridge, Mass.: M.I.T.

Klemensiewicz, Z. 1969. *Ze studiów nad językiem i stylem*. Warszawa: PWN.

Kooij, J. G. 1971. *Ambiguity in natural language. An investigation of certain problems in its linguistic description*. Amsterdam, London: North-Holland Publishing Company.

Lyons, J. 1969. *Introduction to theoretical linguistics*. Cambridge: Cambridge University Press.

Nagucka, R. 1971. "Some remarks on genitival constructions in English". *Studia Anglica Posnaniensia* 3. 51 - 60.

Pisarkowa, K. 1966. *Funkcje składniowe polskich zaimków odmiennych*. Wrocław, Warszawa, Kraków: Zakład Narodowy im. Ossolińskich. PAN.

Rainsbury, R. C. 1967. "Some thoughts on the question of written vs. spoken language". *Occasional papers. A publication of the American Language Institute*. Vol II. No. 1. 20 - 23.

Saloni, Z. 1971. *Błędy językowe w pracach pisemnych uczniów liceum ogólnokształcącego*. Warszawa: PZWS.

Szober, S. 1961. *Gramatyka języka polskiego*. Warszawa: PWN.

Thomas, O. 1965. *Transformational grammar and the teacher of English*. New York: Holt, Rinehart and Winston.

VERB INFLECTION IN POLISH AND ENGLISH

Magdalena Jakóbczyk

Adam Mickiewicz University, Poznan

1.1. Inflection is differently understood by various scholars, so to compare the category in the two languages the author will adopt the following meaning: the role of inflection is to cumulate grammatical functions, e.g. in Polish robi-ł, "ł" indicates tense, person, number and gender. According to Heinz (1961) inflectional categories are regular and systematic sets, given apriori.

In English a verbal inflection has to cover one function, namely tense. Thus we can say that an English verb consists of two constituents: STEM+TENSE AFFIX (cf. Stockwell 1965). A Polish one, however, consists of more constituents, namely: STEM+TENSE+ASPECT+PERSON+NUMBER+(GENDER). These constituents are, to be more precise, functions to be expressed either inflectionally or by other means, e.g. prefix denoting aspect.

POLISH VERB INFLECTION

2.1. If we chose present tense we have following inflections:

	sg.	pl.
1.	-ę, -m	-my
2.	-sz	-cie
3.	-e, -i, -a	-ą

Their variety (in 3rd sg. for instance) depends on so-called conjugations which are, in turn, based on distinction of the theme vowel in 2nd sg., e.g. pisz-e-sz, myśl-i-sz, czyt-a-sz. Let us consider the functions performed by the endings:

ENDING	TENSE	PERSON	NUMBER
ę	present	1st	sg
sz	,,	2nd	sg
e	,,	3rd	sg
my	,,	1st	pl
cie	,,	2nd	pl
ą	,,	3rd	pl

They do not express either gender or aspect. We cannot predict or define the aspect considering the ending only. If the aspect is perfective the verb with present tense ending (formally present) has the function of future perfective. There is no present perfective in Polish.

2.2. In the past tense Polish verb has the following inflectional endings:

	sg.			pl.	
	m.	fem.	n.	m.	non-m.
1.	-em	-am	(-om)	-iśmy	-yśmy
2.	-eś	-aś	(-oś)	-iście	-yście
3.	-0	-a	-o	-i	-y

Few remarks should be made here:

a. theoretically existing separate forms for neuter gender in past tense in 1st and 2nd sg are extremely rarely used and in literature only.

b. traditionally, in plural there are two genders only: masculine, taking -l- suffix in past tense and non-masculine taking -ł- as a past tense suffix.

c. the endings are added to so-called past tense theme (as opposed to present tense theme).

An inflectional verb ending of a verb in past tense then, expresses one more function, namely gender.

2.3. In future tense there are no inflectional verb endings employed, since it is formed by means of the future tense of the verb TO BE (być) and an infinitive or past participle of a given verb. As I have already indicated there may be functionally future perfective tense with formal characteristics (inflectional endings) of present.

2.4. A very important feature of Polish verbs has not been mentioned yet, there is consonant and vowel changes in different verb roots. Sometimes they may be considered part of inflection. The first consonants in the pairs given below occur in the theme of 1st sg and 3rd pl. (present tense) and the second in other persons:

a. CONSONANTAL CHANGE (qualitative)

b-b', p-p', m-m', w-w', f-f', d-dź, t-ć, s-ś, z-ź, n-ń, ł-l, r-rz, g-dz, ż; k-c, cz, ch-sz, ś, h-ż, k, g-k, g'.
e.g. niosę — niesiesz, biorę — bie*rz*esz, wlo*k*ę — wle*cz*esz etc.

b. VOCALIC (qualitative)

e-o, e-a, o-ó, ę-ą,
e.g. niesiesz — niosę, jedziesz — j*a*dę, niosła — ni*ó*sł, wzięła — wzi*ą*ł.

ENGLISH VERB INFLECTION

3.1. The English verb system is complicated by the fact that the full verbs have inflected forms which are constructed in part by stem changes. "Regular verbs in English have their inflected forms which are constructed exclusively by the addition of suffixes to a single stem which is the base form". (Stockwell 1965: 124). In present tense, however, there is no difference as to regular and irregular verbs. Base form, unmarked by any suffix is used for all persons and both numbers in present tense, except for 3rd sg. This gender-marked form (used with pronouns marked for gender — he, she, it) consists of a stem plus -s ending. The inflection -s cumulates three functions: person, number and tense, whereas gender has to be marked by a pronoun. The base form itself with its zero inflection may serve as non-past form and it is only the pronoun that cumulates the functions of denoting person and number (not even always so, e.g. you).

3.2. In past tense the function of expressing tense is performed by -ed suffix, added to base form of regular verbs:

1 verb stem ending	2 phonemic shape of suffix	3 example
/-t, -d/	/-id/	wanted
voiceless consonant	/-t/	cooked
others	/-d/	bathed

Past tense forms of irregular verbs are also marked inflectionally, although it is different inflection, namely modification of the stem of base form. The modifications may be of the following type:

a. VOWEL CHANGE ONLY:

lead — led
shoot — shot

b. CONSONANT CHANGE ONLY:

build — built
make — made

c. VOWEL AND CONSONANT CHANGE:

sell — sold
bring — brought, etc.

3.3 The future tense is not marked inflectionally thus it will not be dealt with in my work.

3.4. Summing up the first part we should note the following:

a. the category which is essential in Polish, namely the aspect, is not important in English, thus we have:

English: Aux → t+mod
Polish: Aux → mod+asp+t

b. English verb-inflection expresses tense only, except -s which also marks the category of person and number.

c. Polish verb-inflection expresses simultaneously: tense, person, number and in the past tense even gender.

d. in either language the future tense is expressed inflectionally.

4.1. The verb TO BE is the one that has retained most of its inflectional forms and is to be treated separately. According to Stockwell (1965) there are the following forms of the verb in English:

1)	Base	BE
1a)	Non-past 1st sg	AM
1b)	Non-past pl and 2nd sg	ARE
2)	Gender marked	IS

3rd sg IS requires the subject with gender clearly stated and it is the reason for calling it gender marked. The above forms have their equivalents in Polish, namely:

Base	1)	BYĆ	(BE)
Non-past 1st sg	1a)	JESTEM	(AM)
NON-past 2nd sg	1b)	JESTEŚ	(ARE)
Gender marked	2)	JEST	(IS)

The forms that do not occur in English as separate entities are:

Non-past 1st pl	JESTEŚMY
Non-past 2nd pl	JESTEŚCIE
Non-past 3rd pl	SĄ

with suppletive stem.

4.2. Other forms given by Stockwell are:

3) a) Past sg WAS
b) Past pl and 2nd sg WERE
4) Perfective participle BEEN
5) Imperfective participle BEING

Polish forms roughly corresponding to them are:

3) a) BYŁ-EM, -AM — 1st sg
BYŁ-EŚ, —AŚ — 2nd sg
BYŁ-0, -A, -O — 3rd sg all corresponding

to English WAS.

b) BYLIŚCIE, BYŁYŚCIE in plural, corresponding to English WERE

4) (BYŁY)
5) BĘDĄC, -Y, -A, -E.

4.3. There is no inflectional form of the verb in the future tense in English whereas it does exist in Polish. Inflectional endings of the present tense are added to imperfective participle stems, giving:

	sg	pl
1.	BĘDĘ	BĘDZIEMY
2.	BĘDZIESZ	BĘDZIECIE
3.	BĘDZIE	BĘDĄ

4.4. The most striking differences in both conjugations are:

a. inflectionally marked gender distinction in the Polish past tense: three in singular (masculine, feminine, neuter) and two in plural (masculine and non-masculine).

b. occurence of the inflectional future tense of the verb in Polish, whereas it does not exist in English. Having considered the distinctions and similarities we can say that the conjugations of the verb TO BE are the most similar ones in both languages although in case of English conjugation of the verb some functions are performed by pronouns, not only inflectionally. This verb may be of some significance in teaching either English or Polish more than any other verb, once having accounted for gender distinction. Also the variety of stems here resembles Polish one, making it thus more understandable to English students.

5.1. English participles, as other verbal forms, consist of two constituents: STEM + TENSE. If the tense is present the ending is -ING added to base form (see-ing, work-ing), whereas in the past tense we find -ED or -EN endings with regular verbs or modification of the stem of the base form with irregular ones (according to the pattern described in 3.2). It must be stressed, however, that they never appear as MV alone. It is always the Aux symbol that accounts for the appropriate form of BE together with the present participle and HAVE with the past participle:

$$\begin{aligned} VP &\rightarrow Aux+MV \\ Aux &\rightarrow Tn\ (Modal)\ (have+en)\ (be+ing) \end{aligned}$$

(Thomas 1965: 149)

5.2. Polish contains a larger number of participles but I shall concentrate on those similar to English ones.

The first participle to be discussed is the present active participle (e.g. myjący). The endings are added to the present tense stem:

sg			pl	
m	fem	n	m	non-m
-ĄCY	-ĄCA	-ĄCE	-ĄCY	-ĄCE

Similarly, as in English, it may function attributively or as a predicate with present or past tense of BYĆ which is not very frequent. The participle itself then, does not inform us as to the tense, person (even number, since -ĄCY and -ĄCE forms are homonymes) and aspect. There is, however, no active present participle in Polish which is perfective. Polish past participle is passive and may be formed from both the perfective and imperfective verbs. The following inflectional endings are added to the past tense stem:-

sg			pl	
m	fem	n	m	non-m
-TY	-TA	-TE	-CI	-TE

The participle may occur, as the previous one, either attributively or predicatively with present, past or future of BYĆ (to be) or future or past of ZOSTAĆ (become).

The above mentioned participles are not pure inflectional forms: most of the grammatical functions are performed here by the inflections of auxiliaries (in Polish) and auxiliaries plus pronouns in English.

6.1. Some conclusions arising from a comparison between the two systems become obvious:

(1) The only category marked inflectionally in both languages is tense (present and past).

(2) The category which is obligatory in Polish (unlike English) is aspect but not marked inflectionally.

(3) The categories of person, number or gender, existing in deep structures of both languages are expressed inflectionally only in Polish.

(4) The only inflectional ending expressing simultaneously: tense, person and number in English is -S, which may be of some help in explaining Polish inflection to English students.

REFERENCES

Bartnicka-Dąbkowska, B. Jaworski, M. Sinielnikoff, R. 1964. *Gramatyka opisowa języka polskiego z ćwiczeniami*. Warszawa: PZWS.

Heinz, A. "Fleksja a derywacja". *Język polski XLI*. 343 - 354.

Jodłowski, S. 1971. *Studia nad częściami mowy*. Warszawa: PWN.

Stockwell, R. P. Bowen, J. D. Martin, J. W. 1965. *The grammatical structures of English and Spanish*. Chicago and London: The University of Chicago Press.

Szober, S. 1966. *Gramatyka języka polskiego*. Warszawa: PWN.

Thomas, O. 1965. *Transformational grammar and the teacher of English*. N. Y.: Holt, Rinehart and Winston.

Tokarski, J. 1951. *Czasowniki polskie*. Warszawa: Wydawnictwo S. Arcta.

TOWARDS A DEFINITION OF IMPERSONAL SENTENCES

Janina Gut

Warsaw University

This paper is concerned with impersonal sentences; such sentences cause a lot of confusion as it is difficult to say precisely what their nature is and how they should be defined. Indeed, very few linguists use this term, but describe these and other sentences in various other terms, for example, in terms of subjectless sentences, generic pronouns, impersonal verbs, etc. What follows is in the first place an examination of these different approaches with the consideration of some of the objections to them. Then an attempt to find additional criteria will be undertaken.

The range of sentences recognized as impersonal varies from one linguist to another and different definitions even contradict one another. The same is true of the characteristics, number, and range of potential subgroups that can be differentiated within the whole class of impersonal sentences. Thus, Gołąb, Heinz and Polański (1968: 90) seem to identify an impersonal sentence with a subjectless one and describe it as:

> A sentence the predicate of which is an impersonal verb or an impersonal form of a verb, for instance *Nad miastem świtało*; *Należało się pośpieszyć*; *Dyskutowano do późna w noc*. An identical function to that of impersonal verbs and impersonal forms of verbs can be fulfilled by expressions symbolizing states, and to a certain extent by infinitives, e.g., *Żal mi go było*; *Nie widać nikogo*; *Nie słychać niczego*. [translation mine[1]],

---

[1] The original is:

Zdanie, w którym w funkcji orzeczenia został użyty czasownik bezosobowy lub bezosobowa forma czasownika, np. *Nad miastem świtało*; *Należało się pośpieszyć*; *Dyskutowano do późna w noc*. Identyczną funkcję jak czasownik bezosobowy wzgl. bezosobowe formy czasownika mogą pełnić pewne wyrażenia symbolizujące stany i w pewnym zakresie bezokoliczniki, np. *Żal mi go było*; *Nie widać nikogo*; *Nie słychać niczego*.

where sentences such as "*Chodzi do gimnazjum* (np. *mój brat*)" are not considered subjectless.

Further on (Gołąb, Heinz, and Polański 1968: 80), an impersonal verb is defined as one

> functioning as a predicate and expressing tense, aspect, mood, etc., without indicating a definite person in the grammatical subject, as in Polish ***świta, grzmi, trzeba***. In general Indo-European languages employ the third person sg. (neuter) for such cases, although it is also possible to use other forms, such as *Mówią, że zima będzie ostra*, and the like. In most cases impersonal verbs denote certain phenomena of nature the ontological subject of which cannot be specified, for example, *dnieje*, and such psychophysical states of the body that do not depend on our will, such as *Mdli mię*, as well as moral states, like ***trzeba, należy***." [translation mine[3]].

The objections to this description are two:

1. Both *Chodzi do gimnazjum* (np. *mój brat*) and *Mdli mię* have equal rights to be qualified as subjectless (or impersonal) as only the surface structures of these sentences have been taken into account.

2. Psychophysical states of the body which are independent of will cannot be employed as a criterion for they can be expressed both in subjectless sentences and in sentences which have subjects, cf. *Mdli mię* and *Rejent pobladnął*, where neither *I*, nor *Rejent* could help being sick or pale.

Szober (1953: 308) has used several different criteria to describe this kind of sentences:

Subjectless sentences are used:

(1) With verbs denoting all kinds of phenomena of nature, such as: *chmurzy się, błyska się, grzmi, dżdży, mży, marznie, taje, świta, dnieje, rozwidnia się, zmierzcha się, ciemni się*, and the like, e.g., *Od czasu do czasu blyskalo. — Rozwidnia się coraz bardziej.*

(2) With verbs denoting various states of mind or body: *boli, kluje, pali, mdli, nudzi, swędzi*, e.g., *W oczach mu się ćmilo.*

(3) With impersonal expressions consisting of the auxiliary verb: *jest, bylo, będzie, staje się, robi się, czyni się*, and a noun or a prepositional phrase, infinitive or adverbial; the auxiliary *jest* usually being omitted, e.g., *Poloneza czas zacząć. — Nie do śmiechu bylo heroinie naszej. — W wielu miejscach male widać łąki. — Bylo mi i smutno i milo.*

---

[3] *Bezosobowy czasownik*- ... Czasownik użyty w funkcji predykatywnej (zob. Predykacja) z uwzględnieniem czasu ewent. aspektu, trybu itd., ale bez wyrażenia określonej osoby podmiotu gramatycznego, np. pol. *świta, grzmi, trzeba*. W językach typu ie. używa się tu w zasadzie 3 os. sg. (neutr.), ale możliwe są tu sekundarnie również inne formy, por. *Mówią, że zima będzie ostra* itp. Znaczeniowo czasowniki bezosobowe wyrażają najczęściej pewne zjawiska natury, których podmiotu ontologicznego nie da się sprecyzować, np. *dnieje*, stany psychofizyczne naszego organizmu niezależne od naszej woli, np. *mdli mię*, oraz ogólne stany moralne, np. *trzeba, należy*.

(4) With any verb, provided that no subject is expressed by means of a separate word or a personal ending, e.g., *Dziś nam szlachectwa przeczą*. [translation mine[3]].

In this analysis, however, criteria (1) and (2) belong to semantics, and (3) and (4) are suface structure descriptions. It is not surprising, therefore that *Nie do śmiechu bylo heroinie naszej* and *Bylo mi smutno i milo* enumerated under (3) in the above description can also serve as perfect examples for (2).

Furthermore (4) sounds contradictory, as Szober requires that one of the conditions for a sentence to be subjectless is that no personal ending be present in it, giving at the same time an example in which such an ending, namely **-ą**, is present.

Klemensiewicz (1968: 36) says that both personal and impersonal sentences should be distinguished within the class of subjectless sentences — the difference between them being that only for personal subjectless sentences is it possible to deduce what the missing subject is and name it with the help of a suitable noun or pronoun, whereas impersonal sentences give no such possibility. Thus, the following are said to be personal: *Czytaj*! — *Mylisz się*. — [...] *Powiadają*. — *Mówiono*. — *Uprasza się*. — *Będzie słychać muzykę*. — *Było widać Warszawę*. [...] *Na plewy starego wróbla nie złowisz*. These on the other hand he classifies as impersonal: *Zaczęło padać*. — *Przestanie grzmieć*. [...] *Szarpnęło drzwiami*. — [...] *Ciągnie mnie na przechadzkę*. — *Zebrało się jej na płacz*. — *Zapragnęło mu się niecierpliwie napotkać i nareszcie ujrzeć to mityczne wojsko polskie*. (St). [...] *Jest późno*. [...] *Do miasta było daleko*. [...] *Można iść*. (=mogę iść, możesz iść, itd.). — *Trzeba* (*potrzeba*) *iść* (=potrzebuję, potrzebujesz iść, itd.). — *Powinno się iść* (=powinienem, powinieneś iść, itd.).

Again it is evident that the above classification contradicts the principle according to which it has been made. Although the principle demands that the group of impersonal sentences be such that there is no way of specifying or naming their subjects, and that the group of personal sentences offer such a possibility — neither: *Mówiono.* — *Uprasza się.* — *Będzie słychać muzykę.* — [...] *Na plewy starego wróbla nie złowisz,* classified as personal, nor: ***Można** iść.* (=mogę iść, możesz iść, itd.). — *Trzeba (potrzeba) iść.* (=potrzebuję, potrzebujesz iść, itd.). — *Powinno się iść* (=powinienem, powinieneś iść, itd.), classified as impersonal make it possible to supply them with subjects. On the whole it seems a much better solution to recognize only *Czytaj*! and *Mylisz się*, as personal, since it is only with respect to these two sentences that one can really tell what the missing subject is.

---

[3] Zdania bezpodmiotowe używane bywają w następujących wypadkach:

(1) Przy czasownikach oznaczających najrozmaitsze zjawiska zachodzące w przyrodzie: *chmurzy się, błyska się, grzmi, dżdży, mży, marznie, taje, świata, dnieje, rozwidnia się, zmierzcha się, ciemni się* itp. Np. *Od czasu do czasu błyskało*. — *Rozwidnia się coraz bardziej*.

(2) Przy czasownikach oznaczających rozmaite stany duszy lub ciała: *boli, kłuje, pali, mdli, nudzi, swędzi*. Np. *W oczach mu się ćmiło*.

(3) Przy wyrażeniach nieosobowych składających się ze słowa posiłkowego: *jest, było, będzie, staje się, robi się, czyni się* i rzeczownika z przyimkiem lub bez, bezokolicznika lub przysłówka, przy czym każde słowo posiłkowe *jest* w czasie teraźniejszym bywa zazwyczaj opuszczane. Np. *Poloneza czas zacząć*. — *Nie do śmiechu było heroinie naszej*. — *W wielu miejscach małe widać łąki*. — *Było mi i smutno i miło*.

(4) Przy każdym w ogóle czasowniku, jeżeli tylko nie oznaczamy wyraźnie podmiotu za pomocą oddzielnego wyrazu lub końcówki osobowej: Np. *Dziś nam szlachectwa przeczą*.

Yet another approach contradicting those of Polański, Szober, and Klemensiewicz is represented by Wierzbicka (1966: 177 - 195), who maintains that there is no such thing as a subjectless sentence; for each sentence contains a slot to be filled by a subject, no matter whether this slot is actually filled or not (zero subject), and no matter how indefinite the subject may be.

Therefore, identifying impersonal sentences with subjectless ones on the basis of their surface structure seems wrong — it is not necessarily the surface structure subject of a sentence that contains the element of 'impersonality' or 'indefiniteness'', as can be seen in the following examples:

(1) *Nie wiadomo co robić.*
(2) ***One** doesn't know what to do.*
(3) *There is **nothing** to peg **one's hopes** on, anyway.*
(4) *Apples are good **for you**.*
(5) *Nawet **nie** pozwolisz **człowiekowi** odpocząć.*
(6) *This system makes **a man** work.*
(7) *"When someone's killed who's been in love **with one**,*
it makes it all so terribly poignant." (Schibsbye 1965: 227)

It is evident that both (1) and (2) are impersonal although only (1) is a subjectless sentence. Similarly: when we compare the Polish *W taką pogodę spać się **człowiekowi** chce*, where *człowiekowi* is not the subject but the indirect object, with its English equivalent ***One** feels sleepy in weather like this* we can see that the English version does have a subject, a subject corresponding to the Polish dative functioning as an indirect object. This suggests that sentences like *W taką pogodę* . . and (1) - (7) are impersonal.

Sentences recognized as impersonal in one language are often expressed by means of other structures in another, the passive voice with indefinite or deleted agent being one of them. This also suggests that they are all impersonal, as they are different realizations of the same deep (semantic) structure:

(8) *He's well known here.* = *Znają go tu dobrze.*

(9) *Niczego nie stwierdzono.* = *Nothing has been found.* = ***On** n'a rien trouvé.*

(10) "*It was not until the spring of 1919 that Dibich was detailed for dispatch on a troop train... Tol'ko vesnoj 1919 goda Dibiča naznačili k otpravke s ešelonom...*" (Borras and Christian 1961: 180) = *Ce n'est qu'au printemps 1919 qu'**on** designa Dibitch pour partir avec le train...* [translation mine].

(11) "*The boats were moved and steered with short handled paddles that had broad leaf-shaped blades*". (Tolkien 1966a: 388) = ***Łódki poruszało się** i sterowało za pomocą krótkich wioseł mających kształt liścia.* = ***On** déplaca les bateaux en les dirigeant à l'aide de petites rames qui avaient la forme de feuilles* [translation mine].

(12) "*Istynbula bu yoldan gil-il-ir* ('Istanbul-to this route-by is gone', i.e. 'This is the route for Istanbul' or 'One takes this road for Istanbul'..." (Lyons 1969: 379).

(13) "*Es wird heute abend getanzt* ('It will be this evening danced' i.e., 'There will be dancing this evening')" (Lyons 1969: 379).

Sentences (12) and (13) show that it is possible to talk of impersonal use of the passive even with 'intransitive' verbs.

Furthermore, sentences like:

(14) ***They** promise **you** a lot in those adverts.*

(15) *Look at my income tax. **They** give **you** money with one hand and take it away with **the** other.*

(16) "*Stańmy trochę dalej, bo inaczej to zadepczą **człowieka***" (conversation in a bus).

show that more than one NP (when these are not conjoined) can carry the element of indefiniteness in a sentence, and consequently at least one of these NP's has to be excluded from the position of subject.

On these grounds it seems best to reject the idea that the absence of a surface structure subject is a necessary and sufficient condition for a sentence to be impersonal, and to assume that the lack of subject can only be one of the factors in formulating the characteristics of impersonal sentences. It also seems plausible to follow Fillmore (1968) in his assumptions that:

(1) "The sentence in its basic structure consists of a verb and one or more noun phrases, each associated with the verb in a particular case relationship". (Fillmore, 21).

(2) It is useful to differentiate between a sentence and a proposition, i.e., "a tenseless set of relationships involving verbs and nouns (and embedded sentences if there are any) separated from what might be called the modality constituent" (Fillmore, 23), i.e., negation, tense, mood, aspect.

(3) The surface structure subject is the result of topicalization, i.e. rule governed choosing and making one of the deep structure NP's the topic of the sentence (cf. Fillmore, 56).

We could try to find out what impersonal sentences are by examining the nature of personal pronouns. From what is said in grammar books one could associate impersonal sentences with those in which a 'generic' pronoun has been used. Thus Schibsbye (1965) says that:

(1) the pronoun *we* is sometimes used to denote "the speaker+everyone else: *we live to learn / we don't like to be contradicted*; this generic value approaches that of *you, one*, etc., used in the sense of 'people'..." (Schibsbye, 84).

(2) "*You* is frequently used of the person(s) addressed+others, indeed, even the speaker may be included..." (Schibsbye, 184).

(3) "*One* can be an indefinite personal pronoun signifying 'I and others'..." (Schibsbye, 276).

(4) "*They* may also be used in reference to a vaguely indicated group of people: *In Japan they generally marry without love / They make fine knives in Sheffield*, or still more vaguely to mean 'people in general': *They say the government will resign*. Here it approaches the generic value of *we, you*, etc., described above (6.1.7f) with the difference that *they* does not include the speaker or the persons addressed" (Schibsbye, 194).

However, the generic pronouns account only for a subclass of impersonal sentences, sentences like *It was five o'clock in the morning, It's going to be tough on the top of that mountain, Nie było widać nawet Pałacu Kultury, Wszczęto dochodzenia*, being left out. For this reason they cannot be used as a criterion for the definition of the whole class of impersonal sentences.

It is possible to try to deduce what impersonal sentences are by finding out what the category of person means and testing how these sentences behave with respect to this category.

Langedoen (1969: 153) gives the following definition:

> Person. The reference of an NP with respect to the speaker, or the writer and the one(s) addressed. If the reference of an NP includes the speaker or writer, the NP is said to be first person. If it includes the one(s) addressed, but not the speaker or writer, it is second person. If it includes neither speaker, or writer, nor the one(s) addressed it is third person..

The definition given by Lyons (1969: 276) is similar:

> The category of person is clearly definable with reference to the notion of participant-roles: the 'first' person is used by the speaker to refer to himself as a subject of discourse; the 'second' person is used to refer to the hearer: and the 'third' person is used to refer to persons or things other than the speaker and hearer.

Both definitions explain 'person' in terms of reference of an NP to either the speaker (+I=*I, we*), the hearer (+II=*you*), or everybody and everything else (+III=*he, she, it, they*). Now one could try to determine which person is present in the following sentences:

(17) *Thou shalt not worship any God but I.* +II
(18) *They say the world is coming to an end.* +III

(19) *Przynieśli mleko.* +III
(20) ***One** wouldn't like a thing like that happen to **one**.* ?
(21) *Za okupacji **człowiek** był bity na każdym kroku.* ?
(22) *Tak **się** nie mówi.* ?
(23) *Niczego nie **widać** w tych ciemnościach.* ?
(24) ***Podano** do stołu.* ?
(25) *Rozpadało się na dobre.* +III
(26) *Odjęło mu mowę.* +III

For some of them it is possible to state which person they refer to, but the others seem to be indefinite with respect to person or form combinations of two or even three persons. The picture should become clearer if all possible combinations of persons are introduced as in Postal (1970: 222):

$$``\begin{bmatrix}+\mathrm{III}\\+\mathrm{II}\\+\mathrm{I}\end{bmatrix}\begin{bmatrix}+\mathrm{III}\\+\mathrm{II}\\-\mathrm{I}\end{bmatrix}\begin{bmatrix}+\mathrm{III}\\-\mathrm{II}\\-\mathrm{I}\end{bmatrix}\begin{bmatrix}+\mathrm{III}\\-\mathrm{II}\\+\mathrm{I}\end{bmatrix}\begin{bmatrix}-\mathrm{III}\\-\mathrm{II}\\-\mathrm{I}\end{bmatrix}\begin{bmatrix}-\mathrm{III}\\-\mathrm{II}\\+\mathrm{I}\end{bmatrix}\begin{bmatrix}-\mathrm{III}\\+\mathrm{II}\\+\mathrm{I}\end{bmatrix}\begin{bmatrix}-\mathrm{III}\\+\mathrm{II}\\-\mathrm{I}\end{bmatrix}"$$

Thus, sentences (20), (21), (22), and (23) should be marked as (+I, +II, and +III) whereas (24) has the specification (±I, −II, +III). As can be seen from this the marking for different impersonal sentences varies.

What is lacking in the definition of impersonal sentences is a uniform criterion, one which would apply to the whole set of impersonal sentences and only to this set. What all impersonal sentences seem to share in common is that even in those cases in which it is possible to determine grammatical person, it is impossible to identify and name the referent(s) of one or more deep structure NP's because it is always unspecified, but the validity of this criterion has yet to be tested. In this article the following proposal is being put forward: to take the sentences which are commonly recognized as impersonal and see how they behave with respect to the criteria discussed above, namely:

(1) Whether the deep structure NP recognized as indefinite always functions as the surface structure subject of the sentence.
(2) Whether the NP in question is the agent.
(3) Whether it is possible to indicate which grammatical person the NP refers to.
(4) Whether the NP is generic or not.
(5) Whether the referent(s) of this NP can be specified.

In Table I all five criteria will be analysed in the same order in which they have been introduced, i.e. columns 1 - 5 are respectively devoted to the notion of subject, agent, grammatical person, genericness, and reference as a criterion. Thus, the negative sign "−" in column 1 (=subject) means that it is another NP in the impersonal sentence and not its surface structure subject that is responsible for its impersonality. The positive sign "+" in column 1 means that

Table I

		1	2	3	4	5
1.	"***It grew*** slowly dark indoors". (Tolkien 1966a: 78)	+	+	+III	—	—
2.	"*It* is nearly midnight". (Tolkien, 81)	+	—	+III	—	—
3.	"*It* is getting late..." (201)	+	+	+III	—	—
4.	"Robi się późno..." (Tolkien 1961 : 247)	—	+	+III	—	—
5.	"*It* went on raining". (Tolkien 1966a: 214)	+	+	+III	—	—
6.	"Bombur was now so fat that he could not move himself from his couch to his chair at table, and ***it** took six young dwarves to lift him*". (241)	+	?	+III	—	—
7.	"So *it* has been for many lives of men". (258)	+	—	+III	—	—
8.	"It is a fair song in our woodland tongue; but this is how it runs in the western speech, as ***some** in Rivendell now sing it*". (353)	+	+	+III	—	—
9.	"*It*'s wonderfully quiet here". (376)	+	—	+III	—	—
10.	"*The boats were moved and steered* with short-handled paddles that had broad leaf-shaped blades". (388)	—	+	+I +II +III	+	—
11.	"I thought I heard some soft splashing; but ***you** hear a lot of such* queer sounds by river at night". (399 - 400)	+	—	+I +II +III	+	—
12.	"*It was decided that* Aragorn and Legolas should at once go forward along the shore, while the others remained by the boats". (406)	—	+	±I −II +III	—	—
13.	"*None* have ever done so yet". (410)	+	+	−I −II −III	?	—
14.	"'You have spoken more than enough, Uglúk', sneered the evil voice. 'I wonder how ***they** would like it in Lùgburz.* ***They** might think that* Uglúk's shoulders need relieving of a swollen head". (Tolkien 1966b: 45)	+ +	— —	+III +III	— —	— —
15.	"'Yes', he said. 'I can manage it. *Lembas does put heart **into you***". (61)	—	—	+I +II +III	+	—
16.	"I don't know, but *it felt as if* something that grew up in the ground — asleep, ***you** might say*, [...] had suddenly woken up, and ***was considering you*** with the same slow care it had given to its own inside for endless years". (65)	+ + —	— + —	+I +II +III +I +II +III +I +II +III	+ + +	— — —
17.	"He has now Isengard to fear as well as Minas Tirith. If Minas Tirith falls ***it** will go ill with Saruman*". (101)	+	?	+III	—	—
18.	"***A man** may love you and yet not love Warmtongue or his councels*,' said Gandalf". (120)	+	—	±I −II +III	?	—

		1	2	3	4	5
19.	"Mercy, Lord! […] *Have pity* ***on one*** *worn out in your service*". (124)	–	–	±I –II ±III	–	–
20.	"***Men*** *said that* in the far-off days of the glory of Gondor the sea-kings had built this fortress with the hands of giants". (133)	+	+	+III	–	–
21.	Beer is good *for a bloke.*	–	–	+I +II +III	+	–
22.	W taką **pogodę** spać się *człowiekowi* chce.	–	–	+I +II +III	+	–
23.	In weather like this *one* feels sleepy.	+	–	+I +II +III	+	–
24.	Niczego tu nie *widać.*	–	–	+I +II +III	+	–
25.	This system makes *a man* work.	–	–	+I +II +III	+	–
26.	*They* promise *you* a lot in those adverts.	+	+	+III	–	–
		–	–	+I +II +III	+	–
27.	Niczego nie stwierdzo***no***.	–	+	±I –II +III	–	–
28.	Nothing has been found.	–	+	±I –II +III	–	–

the indefinite NP making a sentence impersonal is also its surface structure subject. The "+" sign under 2 indicates that the NP in question is an agent in contrast to experiencer, instrumental, locative, etc., where *I* is said to be experiencer in sentences like *I saw him*, whereas in sentences like *I looked at him* it is said to be an agent (cf. Fillmore 1968).

It is assumed that the best criterion will be the one that applies uniformly to all these sentences, i.e., it will not change its character (sign) throughout all the sentences.

From the analysis of sentences 1 - 28 it follows that criteria 1, 2, and 4 should be rejected as:

(1) Criterion 1, i.e., lack of surface structure subject, is too narrow; in fact the majority of impersonal sentences proved to have subjects (see sentences 1 - 3, 5 - 18, 20, 21, 23, 25, 26 and 28).

(2) Criterion 2, i.e., indefiniteness of the agent in a sentence, is not clear; in some cases it is difficult to say whether the 'impersonal' NP is an agent or not (sentences 6 and 17). It also is too narrow since not every sentence must have an agent (cf. sentences 2, 7, 9, 11, 18, 21, 22=23, 24, and both sentences in 14, where *They might think*...='It might occur to them...').

(3) The notion of genericness (criterion 4) is also too narrow and not clear enough (cf. sentences 13 and 18). Sentences 1 - 9, 12, 14, 17, 19, 20, 27, and 28 are not generic.

Criterion 3 is acceptable although it covers only those sentences for which it is impossible to state which person they refer to (sentences 10, 11, 13[4], 15, 16, 21 - 25), and even sentences like 12, 18, 27, and 28 do not destroy its validity in this respect. This criterion, however, drastically reduces the scope of impersonal sentences by rejecting sentences like 1 - 9, 14, 17, 20, and 26. For further analysis it may be useful to employ a wider criterion.

Table I shows that it is the concept of *unspecified reference* that should be made the criterion for the definition of impersonal sentences, since it applies to all of them and it does so in a uniform way, i.e. its value (sign) remains unchanged with respect to each sentence recognized as impersonal. Thus, *a sentence is said to be impersonal when at least one of its deep (semantic) structure noun phrases has no clear reference i.e. its referents (existing really or in the speaker's imagination) remain unspecified.* For each impersonal sentence it was impossible to point out the NP's referent(s) and consequently to name it (them).

Another reason why impersonal sentences should be defined in terms of reference and not in terms of the category of person is that reference is logically prior to that category, i.e., the category of person is definable in terms of reference and not vice versa.

---

[4] It is possible, it seems, to approach the pronoun *none* in sentence 13 in two ways: either treat it as IIIrd person (the set denoted by it having zero members), or as a pronoun indefinite with respect to person and specified as (−I, −II, −III).

Diagram I is the proposed model of the deep structure of an impersonal sentence, where:

proposition = a set of relationships between the verb and its NP's (represented here as variables).
K = deep structure case in the Fillmorian sense (Fillmore 1968): Agentive, Objective (=Patient), Dative (=Experiencer), Instrumental, Locative, etc.,
x_1 = *John, my best friend, one, you, it,* etc.
x_2 = *George's neighbour, the man who lives round the corner,* etc.,
a, b = referents in the outside world

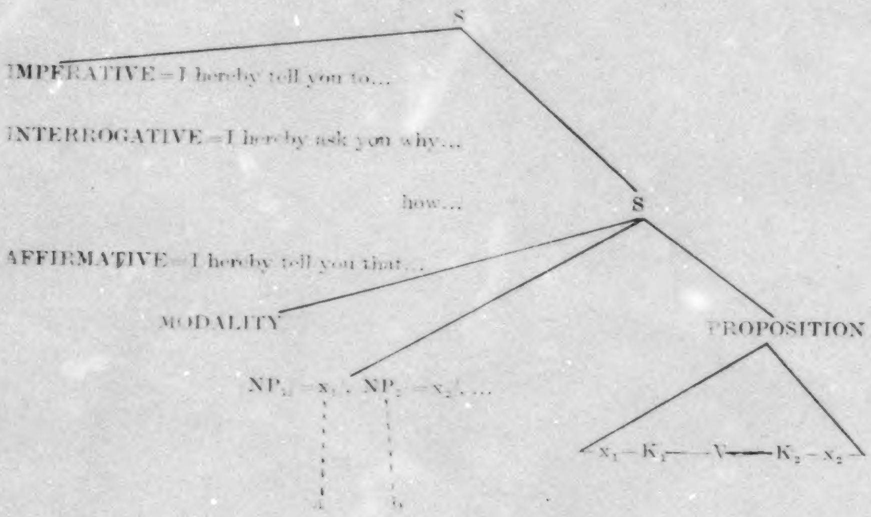

S
IMPERATIVE = I hereby tell you to...
INTERROGATIVE = I hereby ask you why...
how...
S
AFFIRMATIVE = I hereby tell you that...
MODALITY
PROPOSITION
NP₁ = x₁, NP₂ = x₂, ...
x₁ – K₁ — V — K₂ – x₂
a
b

Diagram I

In the diagram the NP's have been removed from the proposition and placed elsewhere, as otherwise it would have been impossible to account for the ambiguity of: *John said he saw George's neighbour*, where *George's neighbour* can be:

(1) the result of John's having said: '*I have seen George's neighbour*'
(2) the result of John's having said: '*I have seen the man who lives round the corner*', in which case it is

the speaker who identifies the '*man who lives round the corner*' with George's neighbour (cf. McCawley 1970: 172 - 175).

REFERENCES

Borras, F. M., and R. F. Christian. 1961. *Russian syntax; aspects of modern Russian syntax and vocabulary*. Oxford: Clarendon Press.

Fillmore, Ch. J. 1968. "The case for case", *Universals in linguistic theory*. Ed. by E. Bach and R. T. Harms. 1 - 88. New York: Holt, Rinehart and Winston.

Jacobs, R. A. and Rosenbaum, P. S. (eds.) 1970. *Readings in English transformational grammar*. Waltham, Mass.: Ginn and Company.

Gołąb, Z., A. Heinz and K. Polański. 1968. *Słownik terminologii językoznawczej*. Warszawa: PWN.

Klemensiewicz, Z. 1968. *Zarys składni polskiej*. Warszawa: PWN.

Langendoen, T. D. 1969. *The study of syntax: the generative-transformational approach to the structure of American English*. New York: Holt, Rinehart and Winston.

Lyons, J. 1969. *Introduction to theoretical linguistics*. Cambridge: Cambridge University Press.

McCawley, J. D. 1970. "Where do noun phrases come from?" *Readings in English transformational grammar*. Ed. by R. A. Jacobs and P. S. Rosenbaum. Waltham, Mass.: Blaisdell.

Postal, P. M. "On so-called 'pronouns' in English" in Jacobs and Rosenbaum (eds.) 1970. 56 - 83.

Schibsbye, K. 1965. *A modern English grammar*. London: Oxford University Press.

Szober, S. 1953. *Gramatyka języka polskiego*. Warszawa: Nasza Księgarnia.

Tolkien, J. R. R. 166a. *The Fellowship of the Ring*. London: George Allen and Unwin Ltd.

— 1966b. *The two towers*. London: George Allen and Unwin Ltd.

— 1961. *Wyprawa*. Transl. Maria Skibniewska (*The fellowship of the ring*). Warszawa: Czytelnik.

Wierzbicka, A. 1966. „Czy istnieją zdania bezpodmiotowe". *Język polski* XLVI. 177 - 195.

All correspondence concerning subscription from other countries than Poland should be sent to ARS POLONA, Warszawa, Krakowskie Przedmieście 7, Poland.